ОРГАНИЗАЦИЯ ГЕРОНТОЛОГИЧЕСКОЙ ПОМОЩИ И ЛЕКАРСТВЕННОЕ ОБЕСПЕЧЕНИЕ

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FEATURES OF ADHERENCE TO DRUG THERAPY IN ELDERLY: THE IMPACT OF THE DISEASE AND FORM OF THE DRUG (THE RESULTS OF RESEARCH IN THE URBAN POPULATION OF ECUADOR)

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The goal of this research is to reveal the peculiarities of commitment to the ongoing drug therapy in elderly patients depending on the nature of the disease and the form of the medicine. The researching showed that the elderly degree of commitment to drug therapy is 53.2% and is significantly more low, than at the patients of middle age, for whom this indicator is of 78.4%. This allows us to consider old age of the independent factor of reduction of the level of commitment to the appointed doctor drug therapy. The elderly the most significant reasons for the decrease in the level of commitment to drug therapy are such factors as fear of side-effects of therapy (in 3.6% of cases), forgetfulness when medication (33,3%), the presence of the articular syndrome and other physical difficulties that hinder the taking of medicines (18,9%), inconvenient size tablet forms (8,1%), economic failure patients (7,5%), the need to receive a large amount of drugs (polypragmasy) (5,6%), health literacy patient (1,8%). These factors are significantly more frequent among elderly patients than among middle-aged patients. In old age, in addition to the age and age-related peculiarities of physical and mental status are independent factors of decrease adherence to the prescribed drug therapy, may be the form of medicines, appointed by the doctor. The most often in the elderly commitment to decreases in the appointment of such medicinal forms as eye drops, injectable forms of medicines, drugs, contained in vials directly and tablet forms of drugs.

Keywords: adherence to drug therapy, elderly.

ОСОБЕННОСТИ ПРИВЕРЖЕННОСТИ К ЛЕКАРСТВЕННОЙ ТЕРАПИИ ЛЮДЕЙ ПОЖИЛОГО ВОЗРАСТА: ВЛИЯНИЕ ЗАБОЛЕВАНИЯ И ФОРМЫ ЛЕКАРСТВЕННОГО СРЕДСТВА (РЕЗУЛЬТАТЫ ИССЛЕДОВАНИЯ В ГОРОДСКОЙ ПОПУЛЯЦИИ ЭКВАДОРА)

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Цель настоящего исследования - выявить особенности приверженности к проводимой лекарственной терапии у людей пожилого возраста в зависимости от характера заболевания и формы лекарственного средства. Исследование показало, что у людей пожилого возраста степень приверженности к лекарственной терапии составляет 53,2% и является достоверно более низкой, чем у пациентов среднего возраста, у которых этот показатель составляет 78,4%. Это позволяет считать пожилой возраст самостоятельным фактором снижения степени приверженности к назначаемой врачом лекарственной терапии. У людей пожилого возраста наиболее значимыми причинами снижения степени приверженности к лекарственной терапии являются такие факторы как боязнь побочных эффектов терапии (в 3,6% случаев), забывчивость при приеме медикаментов (33,3%), наличие суставного синдрома и прочих физических трудностей, затрудняющих прием медикаментов (18,9%), неудобный размер таблетированных форм (8,1%), экономическая несостоятельность пациентов (7,5%), необходимость приема большого количества препаратов (полипрагмазия) (5,6%), медицинская неграмотность пациента (1,8%). При этом эти факторы встречаются достоверно чаще среди пациентов пожилого возраста, чем среди пациентов среднего возраста. В пожилом возрасте, помимо самого возраста и возраст-ассоциированных особенностей физикального и психического статуса являлись, самостоятельными факторами снижения приверженности к назначаемой медикаментозной терапии, могут быть формы лекарственных средств, назначаемых врачом. Наиболее часто в пожилом возрасте приверженность снижается при назначении таких лекарственных форм как глазные капли, инъекционные формы препаратов, препараты, содержащиеся во флаконах и непосредственно таблетированные формы препаратов.

Ключевые слова: приверженность к лекарственной терапии, пожилой возраст.

Introduction.

Peculiarities of treatment of older people are an acute problem in theoretical and practical medicine. This is largely due to the peculiarities of the elderly organism with reduced adaptive capacity; high level of morbidity [10].

Medicament methods are in the basis of elderly people, despite the fact that they should be supplemented by drug-free methods of rehabilitation to prevent excessive use of [1].

The achievements of modern society in the field of pharmacology allowed to develop effective, strong medicine, due to which it became possible to treat serious diseases, thereby increasing the life expectancy of patients. However, achieved the positive effect may offset by virtue of the fact that patients do not always scrupulously follow the doctor's instructions [10].

According to scientific analyses, commitment to patients with chronic diseases shall not exceed 50% even in developed countries [2, 3, 5].

In the poorly developed and developing countries there is a lack of resources and poor access to medical care, one can assume that in these populations the specific weight of the patients, are committed to the medicamentous therapy, even less [7].

Adherence to drug therapy is a complex psychological and clinical phenomenon. Adherence to the therapy of the coincidence of human behavior with the recommendations, necessary for the preservation of his health: implementation of the planned visits to clinics/hospitals; - reception of medicines in accordance with the prescriptions of a doctor; a belief in the need to change the way of life in accordance with the advice of a doctor; a thorough documentation, necessary medical attention (for example, the diary of measurement of blood pressure) [6, 13].

Older patient’s adherence to therapy decreases in connection with memory loss, loneliness, reduced intellectual ability and sensory deficit. All this makes it difficult to contact the patient with the doctor, reduces the degree of fulfillment of relatively simple prescriptions. Age in itself is not a factor that reduces the commitment. Adherence to therapy depends primarily on the personal characteristics of the individual person regardless of his age [8, 9, 10].

Adherence to treatment is essential for the well-being of elderly patients and is an important component of their health. In elderly people, non-observance of the prescriptions of the doctor increases the likelihood of treatment failure, and may also lead to the occurrence of complications, which increases the costs of treatment. Low adherence to treatment leading to poor compliance with treatment regimen, which may have a different form: the patient is difficult to start the treatment, the volatility of the admission of drugs or premature failure from them, incomplete understanding of the patient's treatment schemes, namely, the lack of emphasis on the dose of the drug, the time of his admission and objectives, the need to change their traditional way of life for the improvement of the effects from the treatment, the lack of periodic consultations and etc. [11].

In terms of adherence to therapy age though and is not a factor adherence to treatment, but the appointment of the elderly complex schemes of treatment, a large number of different drugs, as well as frequent depression and cognitive disorders in this group of patients may lead to a sharp reduction commitment [2, 8].

Low adherence to therapy is defined as the voluntary or involuntary non-adherence. Reasons for the lack of adherence varied. Basic causes of low adherence to therapy are distrust of the designated drug, inadequate assessment of the severity of the disease, low prestige of the specialist, has appointed therapy [11].

Thus, the problem of commitment to ongoing drug therapy is a complex, multidimensional, it affects both patient and doctor, and also appointed by the medication. This question is of considerable specificity in relation to the people of elderly and senile age. Adherence to the drug therapy of people of senior age groups this is an important and specific problem especially in developing countries . The topical issue is the study of how the commitment to affect sensitive age factors: reduction of memory, geriatric features of the digestive system, especially the communication of a doctor with an elderly man, his economic status, etc. Knowledge of the specified range of issues will not only identify the state of adherence to the drug therapy, but also prove scientifically the ways of its increase, which will ultimately help improve the condition of persons of elderly and senile age, improve the quality of his life.

The goal of this research is to reveal the peculiarities of commitment to the ongoing drug therapy in elderly patients depending on the nature of the disease and the form of the medicine.

Material and methods of research. Following dissertation research is based on the example of the urban population of the Republic of Ecuador. In this country demographic processes are fully consistent with global trends of demographic transition, when in connection with the socio-cultural and industrial factors there is reduction in mortality rates and increase in life expectancy at birth, while there is a decrease in the birth rate. This is naturally reflected in the proportion of persons of elderly and senile age in the population, which has a stable tendency to growth. Moreover, the problems of geriatric segment of the population are in need to search for new forms of prevention and treatment of such common diseases as osteoarthritis, osteoporosis, Alzheimer's disease and other. The above allows to state that the laws of demographic changes and features of the population of persons of elderly and senile age in Ecuador are all-civilization character [4, 12, 14].

The data obtained in the survey, examination, and clinical observation of older persons in the Republic of Ecuador in 2009-2012, in the cities of La Libertad, Salinas, Santa Elena (province of Santa Elena), the city of Quito, the capital of the Republic of Ecuador (Pichincha) were analyzed. Bases of the study were: non-profit centers of social support in the clinic «baste» (province of Santa Elena); state gerontology center (province of Santa Elena); the state house for the elderly (Quito, Pichincha). All was examined 111 elderly patients, the age of the respondents ranged from 65 to 74 years of age (the average age of 69.2+2.2 years), and men - 49 pers., women - 62 people. These patients were the main group. The control group consisted of patients of middle age, who received treatment in outpatient centers clinic «baste» (province of Santa Elena). All were examined by the 88 patients of middle age, the age of the respondents varied from 40 to 49 years of age (the average age of a 47.1+2.8 years), and men - 46 persons, women - 42 people. In the study did not include patients requiring a stranger care, as well as with mental diseases, accompanied by intellectually reduction, cancer and severe hematological diseases.

Distribution of patients according to the nosological forms. From the last survey and the survey of 111 patients of advanced age of 50 patients (45,0%) suffered from arterial hypertension, 26 (23.4%) patients had osteoarthritis of various localization, 18 older people suffered from diabetes mellitus I and type II (16.2%)and the same number (18 pers., or 16.2%) were registered forms of coronary heart disease, osteoporosis was detected in 12 cases (10.8%), chronic obstructive pulmonary disease - in 8 cases (7.2%), 8 patients had Alzheimer's disease (7.2%), 7 - rheumatoid arthritis (6.3%)and 7 patients had нейросенсорную hearing loss (6.3%), registered hypercholesterolemia as an independent disease was in 6 patients (5.4 percent), non-alcoholic steatohepatitis registered in 6 cases (of 5.4%), benign hyperplasia of the prostate gland - in 4 cases (of 3.6%), iron-deficiency anemia is also in 4 cases (10.8%), myopia was noted in 12 cases (10.8%), chronic gastritis in 3 cases (2.7%), chronic otitis - in 3 cases (2.7 percent), and other nosological forms were registered in 37 patients (33.3 per cent). Thus, in 111 patients of elderly age, included in the study were registered 229 diseases, the index of polymorbidity amounted to 2.06.

From the last survey and the survey of 88 patients of middle age 26 patients (29.5%) suffered from arterial hypertension, 13 (14.7%) of patients had osteoarthritis of various localization, 7 people suffered from diabetes mellitus I and type II (7.9%), and 12 pers., or 13.6%) had registered forms of coronary heart disease, osteoporosis was detected in 3 cases (3,4%), chronic obstructive pulmonary disease in 6 cases (6.8%),and 4 patients had

rheumatoid arthritis (4.5%), 3 patient - neuro-sensory baryecoia (3.4%), registered hypercholesterolemia as an independent disease was in 4 patients (4.5%), non-alcoholic steatohepatitis registered in 5 cases (5.7%), benign hyperplasia of the prostate gland in 3 cases (3.4%), iron deficiency anemia in 4 cases (4.5%), myopia was observed in 9 cases (10.2%), chronic gastritis in 6 cases (6.8%), and chronic otitis - in 3 cases (3.4%), the other nosological forms were registered in 12 patients (13.6 percent). Thus, in 88 patients of middle age, included in the study were registered 107 diseases, the index of polymorbidity amounted to 1.22.

This situation corresponded to the average levels of morbidity in the relevant age groups.

The diagnostics of diseases. Diagnostics of the diseases was carried out in accordance with the current recommendations of the world health organization and National guidelines of the Ministry of health of the Republic of Ecuador.

The method of interviewing. Interviewing elderly patients on the subject of commitment to the receiving therapy was carried out according to the original questionnaire and included the issues of open type (based on extended and long the answer), which allowed to older patients to exactly Express some of the problems, arising at the reception of the certain medicinal forms.

Questions were addressed to elderly people taking prescription drugs, with the aim of identifying problems in the treatment of different forms of drug, with the special way highlighted the difficulties encountered in the application of one or another form of the drug.

The questionnaire included detailed questions about different forms of production of drugs, taken by elderly patients (tablets in plates, tablets in bottles, effervescent tablets, drops for internal reception, eye drops, injections, inhalers, gels and creams, adhesives for the skin) with a view to identifying the most inconvenient for the application of medicinal forms.

Statistical processing of the data. Statistical processing of the results of research carried out with the help of computer program Statistica 6.0. The significance of differences between the groups was determined with the help of the t-test student, Chi-square. Statistically considered the differences, the appropriate error value the reliability of $p<0,05$.

The main results and their discussion. In the course of the study it was found that when the main nosological forms with one and the same diseases of the degree of adherence to the prescribed doctor of treatment was significantly higher in people of middle age (table

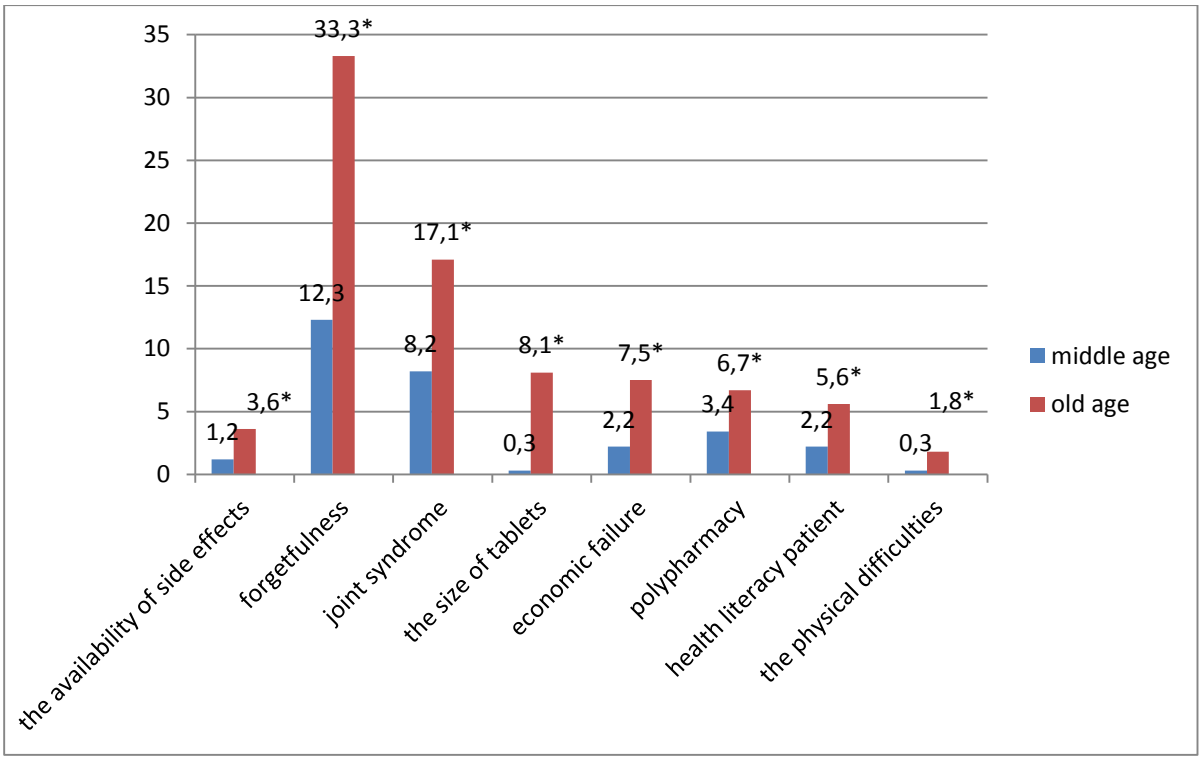
1). Overall degree of adherence to therapy in older people was 53.2% and was significantly lower, than at the patients of middle age (78.4 %), p<0.05.

Table 1

Adherence to therapy for people of different ages at the leading nosological forms

Leading nosological forms	**The degree of adherence to therapy**		**p**
	Patients of middle age (pers./%)	Elderly patients (pers./%)	
Arterial hypertension	19 from 26 (73.1%)	24 from 50 (48.0%)	<0.05
Ischemic heart disease	11 from 12 (91.7%)	12 from 18 (66.7%)	<0.05
Osteoarthrosis	9 from 13 (69.2%)	10 from 26 (38.4%)	<0.05
Diabetes 1 and 2 types	7 from7 (100%)	13 from 18 (72.2%)	<0.05
Chronic obstructive pulmonary disease	4 from6 (66.7%)	3 from 8 (37.5%)	<0.05
The total degree of commitment	69 from 88 (78.4%)	59 from 111 (53.2%)	<0.05

In the course of interviewing elderly patients found that the conduct of their drug therapy was accompanied by a considerable number of problems, different from the problems encountered in patients of middle age (Fig. 1).



* p<0.05 compared with persons of middle age

Figure. 1. The main associated with the age of the problem of drug therapy (the share of persons with which these problems have arisen, in %).

So, in old age fairly often led to the reduction of adherence to therapy compared to patients of middle age (p<0.05) were factors such as fear of side-effects of therapy, forgetfulness when receiving the drugs, the presence of the articular syndrome and other physical difficulties that hinder the taking of medicines, an inconvenient size tablet forms, economic failure patients, the need to receive a large amount of drugs (polypragmasia), health literacy of the patient.

In connection with the identified age peculiarities in the formation of adherence to therapy and the degree of its severity, we decided to detail the number of characteristics inherent in elderly patients.

It is revealed, that not only the age and age-associated features of physical and mental status were independent factors of decrease adherence to the prescribed drug therapy. An

independent factor influencing the degree of adherence to therapy may be the form of medicines, appointed by the doctor. In Fig. 2 it is shown that the most often in the elderly commitment to the decline in the appointment of such medicinal forms as eye drops, injectable forms of medicines, drugs, contained in vials directly and tablet forms of drugs.

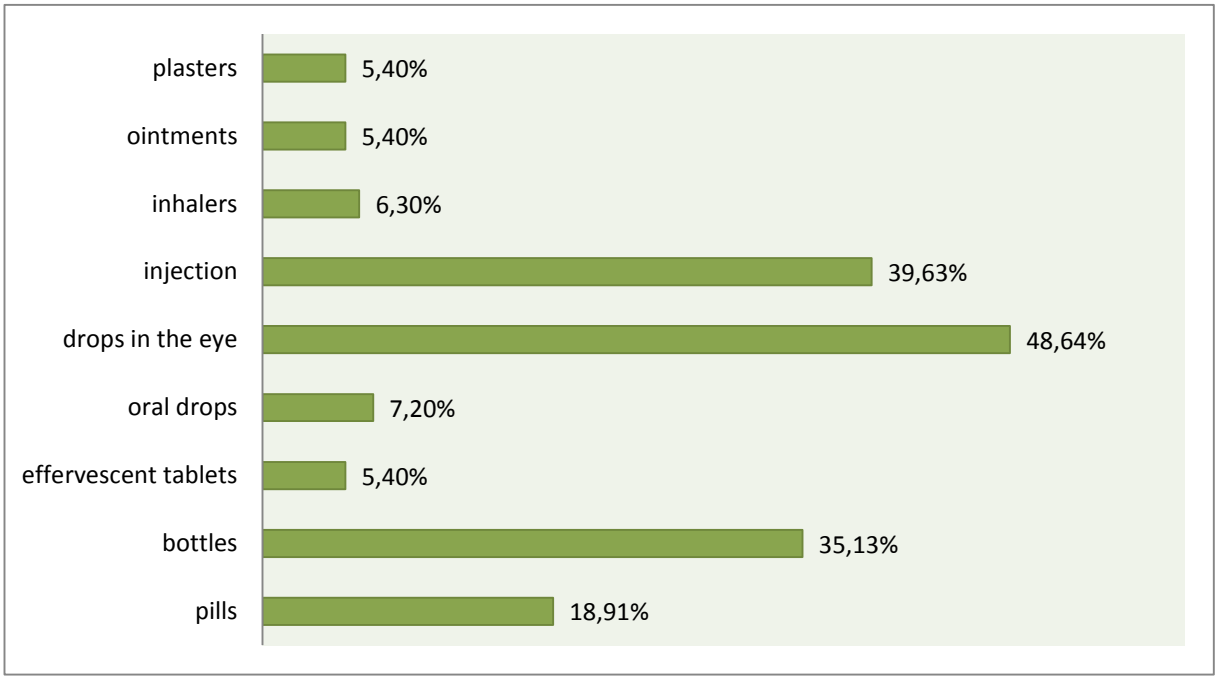


Figure. 2. The most often in the elderly commitment to the decline in the appointment of such medicinal forms as eye drops, injectable forms of medicines, drugs, contained in vials directly and tablet forms of drugs.

So, it is revealed, that in case of arterial hypertension in the elderly is important «forgetfulness» when receiving the drugs, $\chi 2 = 7.9$; the existence of a concomitant of osteoarthritis with pain syndrome, which violated the ton motility of fingers of hands and led to difficulties when removing the product from a factory of packaging, $\chi 2 = 7.6$; the large size pills of medicinal forms, which created the objective difficulties in swallowing, $\chi 2 = 7.5$; fear of side effects of drugs due for polypragmasie, $\chi 2 = 7.4$; inability to purchase drugs because of economic difficulties, $\chi 2 = 7.3$, $p<0,05$ (Table 2).

Table 2

The main reasons for the decline in commitment of elderly patients to receiving drug therapy in arterial hypertension

The reason of reduction of commitment	χ^2	Validity (p)
«Forgetfulness» when receiving the drugs	7.9	<0.05
The presence of osteoarthritis related	7.6	<0.05
Large size of tableted dosage forms	7.5	<0.05
Polypragmasy	7.4	<0.05

In rheumatoid arthritis is joint pain syndrome, $\chi2 = 8.2$; «forgetfulness» by taking medicines, $\chi2= 8.0$; violation of the functions of the musculoskeletal system and low, in this regard, the availability of pharmacies, $\chi2 = 7.9$; fear for polypragmasie, $\chi2 = 7.7$; the large size pills of medicinal forms, $\chi2 = 7.6$, $p<0.05$. On the background of osteoarthritis fairly important were the factors such as joint pain syndrome and concomitant violation of thin motility of fingers brush, $\chi2 = 7.9$; «forgetfulness» when receiving the drugs, $\chi2 = 7.8$; fear of side effects, $\chi2 = 7.7$; the causes of the economic plan, $\chi2 = 7.6$; fear of the consequences for polypragmasie, $\chi2 = 7.4$, $p<0.05$ (Table 3).

Table 3

The main reasons for the decline in commitment of elderly patients to receiving drug therapy in osteoarthritis

The reason of reduction of commitment	χ^2	Reliability (p)
Joint pain syndrome	7.9	<0.05
«Forgetfulness» when receiving the drugs	7.8	<0.05
Fear of side-effects	7.7	<0.05
Economic factors	7.6	<0.05
Fear of the consequences for polypragmasie	7.4	<0.05

In diabetes causes of reduction commitment were «forgetfulness» by taking medicines on the background of different degrees of diabetic encephalopathy, $\chi2 = 8.1$; large size of medications in the form of tablets, $\chi2 = 7.9$; availability for polypragmasie, $\chi2 = 7.7$; fear of side-effects-appointed medical treatment, $\chi2 = 7,5$, $p<0.05$. In osteoporosis - «forgetfulness» by taking medicines, $\chi2 = 7.9$; the fear of the side effects of medicines, $\chi2 = 7.7$; painful

articular syndrome, $\chi 2 = 7.7$; limitation of physical mobility and low, in this regard, the availability of pharmacies, $\chi 2 = 7.6$, $p<0.05$. In Alzheimer's disease - «forgetfulness» by taking medicines, $\chi 2 = 8.2$; the difficulty of information about drug therapy, $\chi 2 = 8.2$; joint pain syndrome on the background of the accompanying osteoarthrosis, $\chi 2= 8.1$; low availability of pharmacies and medicines, $\chi 2 = 7.9$, $p<0.05$. In other nosological forms of adherence to therapy was reduced to the following reasons: sensorineural hearing loss - forgetfulness» by taking medicines, $\chi 2 = 8.1$; joint pain syndrome, $\chi 2 = 7.9$; the large size and the volume of tableted dosage forms, $\chi 2 = 7.7$, $p<0.05$; chronic gastritis and non-alcoholic steatogepatosis - «forgetfulness» by taking medicines, $\chi 2 = 8.0$; fear of side-effects of medication, $\chi 2 = 7.9$; the existence of economic problems in acquiring medicines, $\chi 2 = 7.7$, $p<0.05$; and benign hyperplasia of the prostate gland - «forgetfulness» by taking medicines, $\chi 2 = 8.0$; low availability of medicines in connection with a violation of the functions of the urinary system and musculoskeletal system, $\chi 2 = 7.8$, $p<0.05$; and myopia high degree of the «forgetfulness» by taking medicines, $\chi 2 = 7.8$; the fear of side effects, $\chi 2 = 7.6$; difficulties in establishing contacts with the patient, $\chi 2 = 7,5$, $p<0.05$.

The discussion. Reasons for the decline in commitment of older people to the therapy may be considered in groups, although, as has been shown in our study, one patient may have the position of the complex of diverse reasons.

Summing up their own data and literature data, the reasons for which the patient does not follow the prescribed treatment regimens, can be grouped as follows:

- causes, associated with the patient: the presence at the patient of sensory - decrease in vision and/or hearing impairment can lead to the fact, that the patient does not receive the necessary information, when the doctor gives him oral or written instructions; cognitive disorders in the patient - information received by the patient of a doctor may be distorted, for example, if the patient's dementia, depression, etc.; peculiarities of the course of disease [15].

One of the psychological reasons for the low adherence to therapy may be the formation of adaptation to the existing symptoms or conditions, when the patient prefers to live with minor manifestations of the disease, than follow the appointed treatment. Reduction in the degree of adherence to treatment is especially pronounced in patients with asymptomatic course of the disease, as well as in situations where the effect of the medication does not occur at once;

- social reasons: patients living alone (often women), have less of a commitment to therapy;

- reasons related to drugs: commitment to increases in that case, if the course of treatment is short. Also the reduction of adherence to therapy is observed in the following cases: the patient has a chronic disease that forced him to take medicines constantly; polypragmasy; the complexity of schemes of treatment and the calculation of the dosage; cases, if the introduction of a product requires the presence of qualified staff; if the side effects of the drug (e.g., impotence) is delivered to the patient considerable inconvenience;
- the reasons that caused by the peculiarities of communication and interaction between the doctor and the patient. It is very important for the physician to be clearly explained to the elderly patient terms and stages of treatment. Prescriptions may not be fulfilled in full, if the patient does not have the opportunity to ask your doctor all questions of interest to him. Insufficient duration of the consultation can also lead to poor patient adherence to treatment. It should be remembered, that the complicated treatment regimens require more time to explain their patient, and don't underestimate the importance of repeated consultations. Often issues in the administration of the drug to occur in patients only in the process of treatment.

Thus, the problem of commitment to ongoing drug therapy is a complex, multidimensional, it touches on the elderly patient, and the doctor, and also appointed by the medication.

For all older people is characterized by some or other problems with health. The majority of older people (about 80%) suffer from chronic diseases. Due to this, there is a high frequency of consumption of medicines older persons.

It is important to consider that these drugs are available in a different form, in the majority of cases, an elderly person or by reason of his illness, or because of absent assistance forget to take them, or does it not according to the schedule, confuses the pills, because sometimes he know them only by the color of.

Describes a situation where older patients don't know the name of tableted drugs, which take, as well as in the moment of reception of various drugs elderly people with chronic diseases such as rheumatoid arthritis because of pain in the joints of the wrist can't get the medicine out of the packaging. All this leads to the fact that older people or do not take drugs, because forgotten, or not able to get out of the packaging, or are not on schedule.

Upon reception of various forms of medicinal products may encounter the following problems:

1). Eye drops. Eye drops are one of the commonly prescribed forms of the medicinal product. Reduction of commitment to their application due to the fact that often older people

themselves are not able to drop his eyes because of the pain in the joints, lack of skills, tremor of the hands and should almost always resort to the assistance of another person.

2). Tableted preparations with a large samples of active substance. Some drugs, such as vitamins, are issued by the large size, which makes it difficult to older people, their reception and they refuse them.

3). Liquid medicines. Drugs produced in bottles with the various types of caps, also cause a lot of problem in older people, as they sometimes tightly closed, and the old people can't open them, when they need to take this medicine. Also, often because of poor eyesight, shake the hands of older people find it difficult to comply with the accuracy of dosing, especially the number of drops.

4). The injectable form. Injections are very well accepted by older people, because they really believe in their rapid effect, but many of them complain, because they cause too much pain and stress, so often prefer to interrupt treatment. In addition to the use of injections requires a dedicated staff, and the elderly are often difficult to themselves reach health centers or find someone who would do them an injection at home.

5). Creams and gels. The use of creams and gels are sometimes physical difficulties in the application of the patients of elderly age, especially when the lesion is small joints of hand, violations of the fine motor skills of Central Genesis.

Taking all this into account, it is necessary to look for ways to help older people in the moment of reception of medicines, and also establish a special system of reminders that will allow to comply with the admission of drugs, thus increasing the effectiveness of therapy and adherence to it.

Conclusions.

1. The elderly degree of commitment to drug therapy is 53.2% and is significantly more low, than at the patients of middle age, for whom this indicator is of 78.4%. This allows us to consider old age of the independent factor of reduction of the level of commitment to the appointed doctor drug therapy.

2. The elderly the most significant reasons for the decrease in the level of commitment to drug therapy are such factors as fear of side-effects of therapy (in 3.6% of cases), forgetfulness when medication (33,3%), the presence of the articular syndrome and other physical difficulties that hinder the taking of medicines (18,9%), inconvenient size tablet forms (8,1%), economic failure patients (7,5%), the need to receive a large amount of drugs

(polypragmasy) (5,6%), health literacy patient (1,8%). These factors are significantly more frequent among elderly patients than among middle-aged patients.

3. In old age, in addition to the age and age-related peculiarities of physical and mental status are independent factors of decrease adherence to the prescribed drug therapy, may be the form of medicines, appointed by the doctor. The most often in the elderly commitment to decreases in the appointment of such medicinal forms as eye drops, injectable forms of medicines, drugs, contained in vials directly and tablet forms of drugs.

4. Development of measures aimed at increasing the commitment to the ongoing drug therapy in elderly and senile age, should be based on the effects of the leading causes of reduction of adherence to therapy, represented by three groups: 1) associated with the age of the patient (e.g., age-related decline in memory); 2) associated with the presence of the patient of one or another disease (for example, articular syndrome or other physical constraint on the normal reception of the medicinal product); 3) associated with psychological characteristics of the elderly patient (for example, fear of side effects, the fear of receiving large quantities of drugs); 4) the socio-economic causes (economic insolvency, health literacy elderly patient).

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