

## THE ROLE OF CONDUCTED THERAPY ADHERENCE IN THERAPEUTIC PATIENTS

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The stated goal of this research was to study the degree of adherence to treatment process in patients with different illnesses as hypertension, rheumatoid arthritis and iron deficiency anemia and to identify the most common causes of low adherence to the conducted therapy. The study involved 195 patients with chronic socially significant diseases such as hypertension, rheumatoid arthritis, and iron deficiency anemia. The Morisky-Green questionnaire was used in the research. The obtained data were processed by the method of variation statistics. This study indicates that the reasons for irregular intake or non-consumption of the drug are the highest proportion of such reasons as the inability to buy the drug in a pharmacy; lack of desire to take the drug constantly; forgetfulness of taking the drug; periodic gaps, the time of admission and their frequency characteristics differ depending on the type of disease.

**Key words:** Rheumatoid arthritis, degree of adherence, Morisky-Green test.

One of the most urgent problems of modern medicine is the problem of low adherence to treatment, which is fraught with the consequences of the associated underlying pathology. Since, insufficient adherence to the treatment of chronic diseases is the main reason for the decrease in the effectiveness of the treatment, the development of complications of the underlying disease, the decrease in the quality of life of patients and, accordingly, the increase in treatment costs [6]. Studies have found that long-term adherence to any treatment of any disease does not exceed 50% [2]. A number of studies conducted on adherence to treatment showed that the degree of adherence was in the range of 43-78% [3,5,10,11]. It has been established that 1/3 of patients stop the recommended treatment within 12 months after a cardiovascular event. At the same time, low adherence to treatment

was associated with a significant increase in the risk of developing cardiovascular complications [1, 3, 4, 7, 8].

**The aim of the study:** The stated purpose of this study was to study the degree of adherence to treatment in patients with hypertension disease, rheumatoid arthritis and iron deficiency anemia and to identify the most common causes of low adherence to the therapy.

### **Materials and research methods**

In the work, the results of a survey of 195 patients with chronic socially significant diseases such as hypertension, rheumatoid arthritis, and iron deficiency anemia were analyzed. Among the examined patients, the number of patients with hypertension was 196, rheumatoid arthritis - ..., iron deficiency anemia - ...

To assess the adherence and factors influencing to it, a questionnaire was used that included the Morisky-Green test (a validated test consisting of 4 questions assessing the level of adherence to treatment) [9] and 10 questions to identify the cause of irregular or non-administration of therapy. According to the Morisky - Green test, patients who scored 4 points were considered adherent, 3 points were insufficiently adherent, and 2 or less points were considered non-adherent to treatment. The obtained data were processed by the method of variation statistics.

### **Research results**

Characteristics of patients subjected to the survey are presented in Figure 1. As can be seen from the data presented, among the studied patients, people with hypertension (HD) occupy the highest proportion (about 30% of all patients), 1/5 of the patients were people with rheumatoid arthritis (RA) and ...% of patients with iron deficiency anemia. The analysis of the results of examined patients, depending on age, shows that the average age of the respondents is the highest among patients with ZSSS, the lowest among patients with ZNS and ZES (Fig.1). At that time, the analysis of sex differences, as can be seen from Fig.1, indicates that the proportion of women among patients with IDA and RA is the highest.

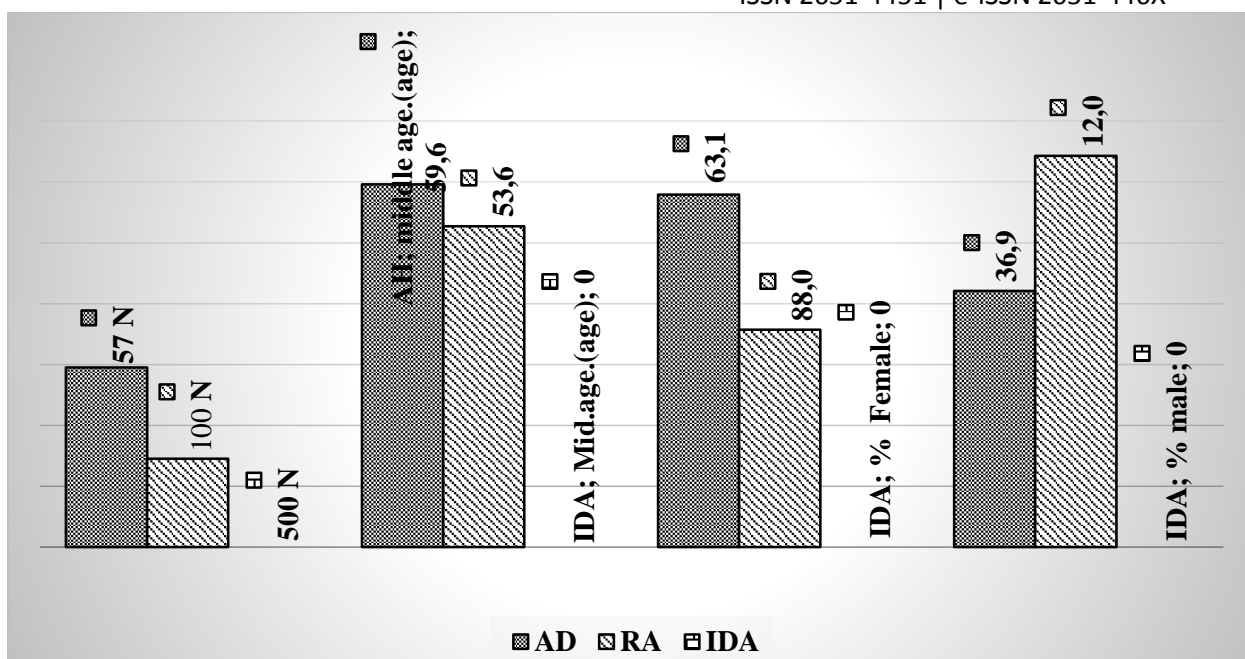


Fig. 1. Characteristics of patients examined to assess the degree of adherence to treatment.

Note: AD –hypertension; RA -rheumatoid arthritis; IDA -iron deficiency anemia.

Analysis of the degree of adherence to treatment in the studied patients, as can be seen from Fig.2, shows that the highest proportion of patients with a lack of adherence to treatment (2 or less points) is observed among patients with ... and, especially, with ... (from 60% to 70%). At the same time, the lowest proportion of patients with a lack of adherence to treatment occurs among patients with ... and, especially with ... And among patients with ... this category of patients make up almost half of the respondents. In general, the proportion of patients with a lack of adherence to treatment is quite high and occurs in more than half of the surveyed patients, regardless of the type of disease (Fig.2).

When analyzing the frequency of occurrence of patients with unsatisfactory adherence to treatment (3 points), depending on the type of disease, it can be traced that the proportion of patients in this category is on average, regardless of the type of pathology ...% of respondents (Fig.2). At the same time, if the proportion of such patients is lowest among patients with ... (about 18%) and with ... (about 21%), and the highest among patients with ... (about 54%).

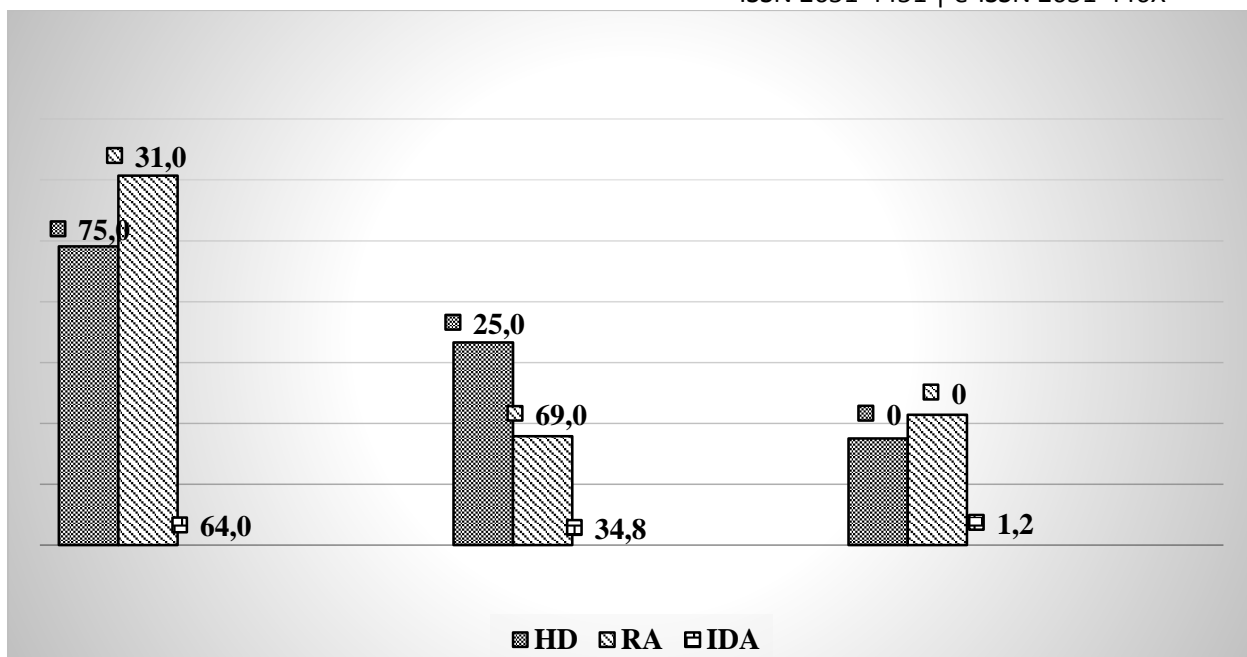


Fig. 2. The degree of adherence to treatment in patients depending on the type of disease (in %)

Note: HD – hypertension; RA - rheumatoid arthritis; IDA - iron deficiency anemia.

As can be seen from the data presented in Fig.2, the proportion of patients with satisfactory adherence to treatment (4 points) in general, regardless of the type of disease, is noticeably lower than the proportion of patients with unsatisfactory and lack of adherence to treatment and is approximately 1/5. At the same time, if among patients with HD, iRA make up 21.4% and 20.0%, respectively, then among patients with IDA they make up 17.5%, respectively. Consequently, the proportion of patients with adherence to treatment, regardless of its degree, is comparatively higher among patients with ...

In order to find out the reasons for not fulfilling medical prescriptions for treatment, we separately analyzed the results of a questionnaire to identify the causes of irregular admission or rejection of therapy prescribed by a doctor. The results of the analysis are presented in table 1.

As can be seen from the data presented in the table, the proportion of people whose reason for irregular doctor's appointments was due to the lack of opportunity to buy medicines at the pharmacy was the highest (64%) among patients with ZDS and was the lowest (almost 2 times) among patients with ZES. In general, this

reason, with the exception of patients with ZES, occurred in more than half of the surveyed patients. (table 1).

The proportion of people who consider it was not necessary to be treated was the same among patients with ZSSS, ZDS, ZODA and with ZNS and ranged from 40.4% to 46.7%. Only among patients with ZES, this cause was relatively rare, amounting to only 9.1%. It should be noted that this cause occurred in most cases in 2/5 of the patients, with the exception of patients with ZES, in whom it occurred in every 11 patients. Apparently, the low frequency of these causes among patients with ZES is associated with the peculiarities of the course of endocrine pathology and the goals of their pharmacotherapy. Since, if we take into account that diabetes mellitus prevails in the structure of endocrine pathology, it becomes obvious that it is necessary to take sugar-lowering drugs as part of substitution therapy. The gender of patients may also play an important role in this. Female patients predominate among patients with ZES compared to groups of patients with other diseases (Fig.1).

Patients who forget to take the prescribed drug, among patients, regardless of the type of disease, occupied the highest proportion (about 2/3 of patients). At the same time, an exception occurred among patients with ZNS. Perhaps, the nature of the course and manifestations of pathology related to NMS plays a certain role here. As a rule, CNS is often accompanied by pain syndrome, which requires the forced intake of painkillers and anti-inflammatory drugs.

From 36% to 59.6% of patients in the compared groups do not always follow the doctor's recommendations due to their unwillingness to take medications (Table 1). At the same time, if the proportion of such patients is highest among patients with ZSSS, ZODA and ZZHKT, then it is lowest among patients with ZDS, ZNS and ZES. Apparently, the reason for this is a relatively long course of drug therapy for these diseases compared to Diseases of the respiratory, nervous and endocrine systems.

Patients who stop taking the drug due to normalization of blood pressure levels are highest among patients with CVSS, ZODA, and especially among patients with

NMS. At the same time, among patients with CDS is relatively low, accounting for only  $\frac{1}{4}$  of the patients. Such a frequency of occurrence of this cause in the latter is possibly due to the significance of the level of blood pressure and drugs affecting the level of blood pressure for pathologies related to ZDS. At the same time, it is necessary to take into account the gender characteristics of patients included in this group.

As can be seen from Table 1, the proportion of people among the analyzed groups of patients is quite high, who associate the irregular implementation of the doctor's recommendation on taking medications with skipping the time of admission and the inconvenience of taking them at other times, which is in the range of 45.5% to 64%. At the same time, if the proportion of those among patients with ZSSS, ZDS, ZODA and with ZNS is almost  $\frac{1}{3}$  of the patients, then among patients with ZZHKT and ZES is slightly less and amounts to 48.5% and 45.5%, respectively.

Reasons such as the doctor for m / w changed the drugs, relatives advised to reduce the number of pills taken, an allergic reaction appeared, refusal of therapy without specifying the reason, in general, among the groups of patients studied for diseases were less frequent compared to the above reasons (Table 1). Although among patients with ZDS and with ZES, still, the proportion of patients with a cause associated with a change in the drug by a doctor for m / w, among patients with ZNS - 1.5 and 2 times higher reasons related to the fact that relatives it was advised to reduce the number of tablets taken, among patients with ZES – with the appearance of an allergic reaction and among patients with ZHKT and with ZNS - refusal of therapy for no reason (Table 1).

Consequently, there is a certain difference in the frequency of occurrence of individual causes of irregular drug intake, depending on the type of diseases, which is associated with the peculiarities of the course and manifestations of the studied diseases. The role of sexual differences in the structure of the studied diseases is not excluded.

Table 1

The reason for irregular admission / rejection of therapy, depending on the type of chronic pathology (in %)

Reasons	Disease		
	HD (Hypertension)	RA	IDA
I can't always buy the drug at the pharmacy	55,8	64,0	60,4
I think that there is no need to be treated	40,4	40,0	15,6
I forget to take the drug	63,5	68,0	59,0
I don't want to take the drug all the time	59,6	36,0	49,0
Blood pressure returned to normal, so I stopped taking medications	48,1	24,0	29,4
Sometimes I miss the reception time, and the reception at other times is inconvenient	61,5	64,0	64,4
The doctor for m / w changed the drugs	34,6	52,0	27,8
Relatives advised to reduce the number of pills taken	34,6	28,0	20,4
There was an allergic reaction	19,2	28,0	33,8
Refusal of therapy without specifying the reason	17,3	24,0	24,8

In conclusion, the results of the study indicate that among patients with various pathologies of internal organs there is a fairly low level of adherence to treatment. In the frequency of occurrence of certain degrees of adherence to treatment, there is a certain dependence on the type of diseases. the occurrence of individual causes of irregular drug intake there is a certain difference depending on the type of disease, which is associated with the peculiarities of the course and manifestations of the studied diseases.

**Conclusions:**

1. Among patients with the studied diseases, persons who are committed and not committed to treatment are not equally common.
2. The proportion of persons committed to treatment is relatively high among patients with ... and low among patients with ...
3. In the structure of the causes of irregular drug intake, the most common reasons are related to the lack of opportunity to buy the drug at the pharmacy, the lack of desire to take the drug constantly, forgetfulness of taking the drug and periodic omissions during drug intake.

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