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Increasing the Adherence of Patients with Arterial Hypertension to Treatment

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Abstract: This article notes the growth of non-communicable diseases, among which cardiovascular diseases and diabetes pose a danger to human life. According to WHO data, about 79% of all deaths in Uzbekistan are due to non-communicable diseases, and complications of diseases of the cardiovascular system remain the main cause of premature death [1]. The absolute number of deaths from diseases of the circulatory system among the population is gradually increasing, especially there is an increase in mortality among men by 11.8% and a decrease in it among women by 7.2% [1]. Approximately one third of the adult population of the country has arterial hypertension, and one fifth of the adult population is at risk of heart attack or stroke [2]. High blood pressure (BP) is the main risk factor for coronary heart disease, ischemic and hemorrhagic heart attacks in the world and the cause of death in 13% of cases [3]. Despite the existing effective methods of treatment of arterial hypertension (AH), a wide arsenal of drugs, it is still not possible to prevent complications and cases of premature mortality from them due to the low adherence of patients to treatment.

Keywords: Diabetes, Cardiovascular Diseases, Hypertension, Family Doctor.

1. Introduction

According to the WHO definition, adherence to treatment is the degree to which a doctor's recommendations regarding treatment are followed. These are timely intake of medicines at the prescribed dose, compliance with the specified frequency of intake, behavior change in accordance with the requirements of medical personnel to maintain a healthy lifestyle [4]. Low adherence is the main reason for a decrease in the therapeutic effect, significantly increases the likelihood of complications and premature deaths, and increases the cost of treating patients. According to the literature data, the adherence to treatment does not exceed 50% in dynamics [5,6]. In clinical practice, adherence or compliance is assessed by the drug use index, which is the number of days of taking a full dose of the drug divided by the duration of the days of the follow-up period. Adherence is influenced by the main factors associated with the patient, which depends on gender, age, level of education and intelligence [7]. Individuals with the following risk factors (smoking, low physical activity, poor nutrition, excessive alcohol consumption, overweight and obesity) tend to have low adherence [8]. In order to study the causes of low adherence of patients with arterial hypertension to treatment, we analyzed the data of the study "STEPS on the prevalence of risk factors for noncommunicable diseases in the Republic of Uzbekistan" and data from our own study on the adherence of patients to the doctor's recommendations.

2. Materials and Methods

To analyze the current situation in the diagnosis and treatment of arterial hypertension in the country, we used data from a study on the prevalence of risk factors for noncommunicable diseases "STEPS-2019". The study was conducted among the population aged 18-64 in all regions, data were collected from standard questionnaires and statistically processed [2]. Our own research was conducted among family doctors of family polyclinics in 4 districts of the Samarkand region. The teachers evaluated the consultation of family doctors of patients with arterial hypertension on prescribing medication to assess the degree of patient adherence to treatment, as well as evaluated treatment recommendations in outpatient records and filling out an individual management plan for a patient with hypertension. The teachers conducted interviews with patients after the doctor's appointment regarding the issues of prescribed treatment of patients. The study involved 64 family doctors, 47 patients with hypertension, and evaluated 267 outpatient records.

3. Results and Discussions

As the results of the STEPS-19 study showed, 46.2% of the people who participated in the survey had not previously measured blood pressure by medical professionals, therefore, a possible increase in blood pressure was not diagnosed in time. When blood pressure was measured for all persons aged 18-64 years, an increase in blood pressure above 140/90 mmHg was found in 38% of respondents. Of these, in 46.5% of cases, respondents did not know about their elevated blood pressure. Consequently, patients rarely go to doctors and do not measure their blood pressure at home, therefore, arterial hypertension is diagnosed late. Analysis of data on blood pressure control and regular treatment showed that 29.1% of patients with hypertension regularly receive effective therapy, and blood pressure levels are within normal limits. In 20.5% of patients, hypertension was diagnosed, but the blood pressure level is high, treatment is not taken regularly, blood pressure is not measured at home. 3.8% of patients were diagnosed with hypertension, but medication was not prescribed, blood pressure levels are not controlled. During the last 12 months, 14.7% of patients were diagnosed with hypertension, but treatment and blood pressure levels are not controlled, drugs are not taken regularly "when the head hurts" or "when blood pressure is increased when measuring". Of great concern are 7.7% of patients who have been diagnosed with an increase in blood pressure of more than 160/100 mmHg. Three quarters of the respondents (73.3%) with diagnosed arterial hypertension take antihypertensive medications, and half of them (50.4%) use medicinal herbs or folk remedies to reduce blood pressure [2]. As can be seen from the results obtained, there is no routine measurement of blood pressure and early detection of people with elevated blood pressure in primary health care institutions. Patients with established arterial hypertension do not regularly take antihypertensive drugs, family doctors do not control blood pressure levels and the effect of the treatment. There is low adherence to treatment and lack of responsibility for their health among patients.

The results showed the need for population screening with blood pressure measurement, blood pressure control and treatment in patients with hypertension in dynamics, systematic follow-up and rehabilitation of patients with cardiovascular diseases for the prevention of myocardial infarction and strokes [9]. To this end, WHO PEN protocols for the early detection of elevated blood pressure, diagnosis and treatment of patients with hypertension have been adapted for the introduction into PHC institutions [10]. Based on the recommendations of the protocol, questionnaires were compiled on the tactics of management by family doctors of patients with arterial hypertension, on the assessment of filling out outpatient cards according to the individual management plan of a patient with hypertension, on interviewing patients about blood pressure measurement and treatment. An analysis of the completed questionnaires on the assessment of the consultation of family doctors showed that 89.1% of doctors consulted on an individual patient management card filled out on the day of the patient's admission. 67.2% of doctors based on the data of the card re-determined the cardiovascular risk, the rest recorded previously established figures. 82.8% used WHO PEN clinical protocols when prescribing medicines. They prescribed medications according to the recommendations of the clinical protocol with a selection of dose and frequency of administration, but only 18.7% of doctors asked patients about their consent to take medication, the ability to buy drugs and take them regularly. 15.6% discussed the regularity of the visit and determined the date of the subsequent visit, doctors provided incomplete information to the rest of the patients due to lack of time.
Thus, there are gaps in strict adherence to the recommendations of the protocol, therefore, it is necessary to train family doctors on the implementation of WHO PEN protocols. The analysis of the questionnaire "Patient Interview" showed that in most cases the doctor prescribes the drug and explains the hours of administration, but does not explain in detail why each drug should be taken and does not talk about side effects in 55% of cases.

Fig.1. Explained Why Each Medicine Should Be Taken and Talked About the Side Effects

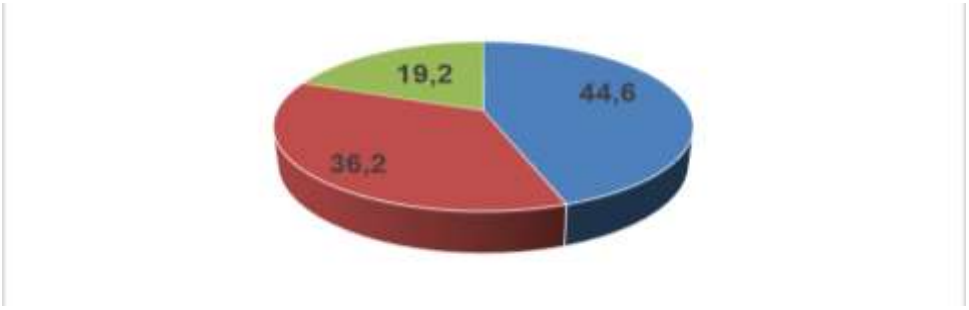

Fig.1. Comments of the family doctor

Awareness of risk factors also affects the level of commitment. However, even understanding the severity of their disease, 44.7% of patients were unable to recall half of the information provided to them by the doctor. One fourth of the patients did not know the frequency of visits to the doctor, 23.4% of patients what tests should be taken, 17.1% did not know about the need to reduce cardiovascular risk, Fig.3.

Frequency of visits events at each visit reducing cardiovascular risk to the doctor

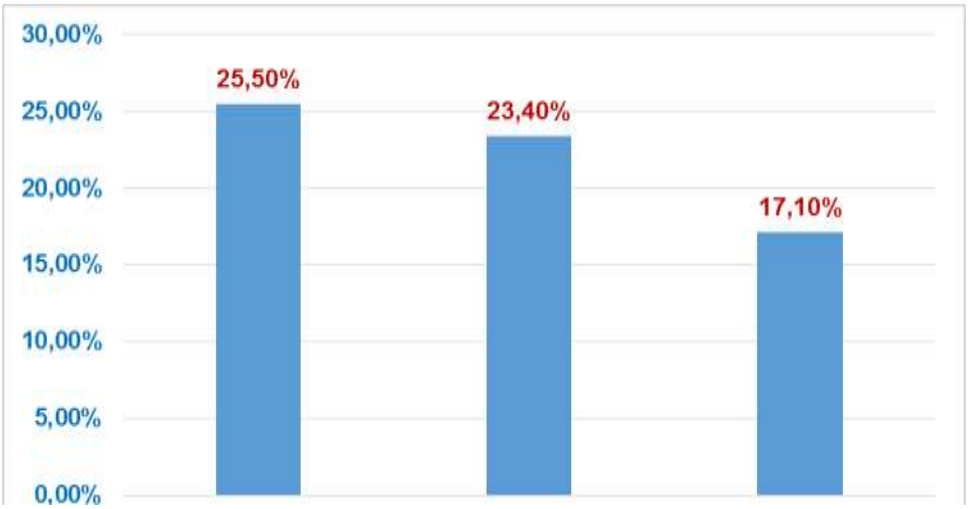

Fig.2. Discussion of management tactics by a doctor

Consequently, family doctors do not pay due attention to patient counseling, do not explain the frequency of visits to the doctor, the delivery of tests at each visit, the need for measures to reduce cardiovascular risk - these important points, doctors should patiently repeat, repeatedly asking them about their intentions regarding treatment [11].

To the question "Was the doctor's information clear?" 44.6% of patients answered "Yes", but 25.6% of patients did not understand the information, and 29.8% answered "partially". When asked about following the doctor's advice, 36.2% of patients answered in the affirmative, but the rest of the patients doubted whether they would be able to follow all the doctor's instructions. Satisfaction with the doctor's appointment was noted by 61.7% of patients, but 38.3% said they expected more, Fig.3.

Clear information following the Satisfaction with advice of a doctor the quality of reception

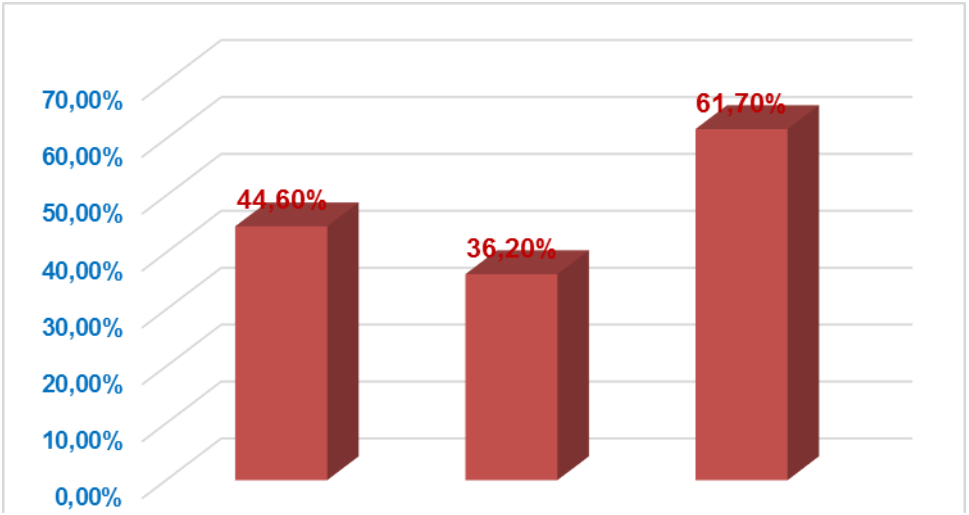

Fig.3. Patient satisfaction with the doctor's appointment

Thus, in order to achieve full compliance by patients with the recommendations of doctors, it is necessary to conduct consultations competently, with arguments and examples from practice, showing protocols, asking if

"everything is clear" and repeatedly repeating important points that patients need to follow. At the end of the visit, doctors should be sure that they have achieved patient satisfaction with the conversation with the doctor.
Low adherence associated with a doctor is detected in the absence of a permanent attending physician, when the doctor prescribes many medications or prescribes outdated medications. Sometimes doctors prescribe treatment at the request of patients without following the recommendations of clinical protocols. In these cases, doctors themselves can contribute to a deterioration in the patient's adherence to treatment, which hinders the effectiveness of treatment. Failure to achieve the target blood pressure level leads to a decrease in patient adherence to treatment, low trust in the doctor, and insufficient medical information lead to low patient adherence to treatment [12, 13].
An assessment of the recording of outpatient cards and filling out an individual patient management plan showed that not all family clinics had individual patient management plans embedded in outpatient cards. In 32.8% of outpatient cards, individual patient management plans are filled out correctly, there are data on measurements of weight growth, waist size, the diagnosis of arterial hypertension is recorded with an indication of cardiovascular risk, in the rest of the cards individual patient management plans were partially filled or even absent.

Thus, the clinical protocols in the examined family polyclinics are not fully implemented, it is necessary to hold seminars for medical personnel on filling out individual patient management plans and consulting on taking medication. Doctors need to evaluate each patient's adherence to therapy and determine the reasons for non-compliance with the doctor's prescriptions. To increase adherence to treatment, it is recommended to prescribe a therapy regimen with repeated monitoring and feedback from the patient. Unfortunately, patients with high cardiovascular risk have low adherence to therapy. According to the literature, a month after undergoing AMI, 25-30% of patients stop taking at least one drug and over time, adherence decreases even more. One year after AMI, only 50% of patients are constantly taking statins and antihypertensive therapy [8]. Therefore, it is necessary to monitor the work of doctors to identify risk factors for low patient adherence and ways to increase it.
In clinical practice, doctors should evaluate patients' adherence to therapy at each of their visits to medical institutions and during home visits, identify possible reasons for non-compliance with prescriptions and improve adherence. To do this, doctors need to clearly explain the duration of administration, frequency and possible side effects of the drug, ask the patient's opinion, taking into account his preferences for joint decision-making. Nursing staff should regularly monitor medication intake and blood pressure levels during a home visit.

4. References

1. WHO newsletter. Non-communicable diseases. Basic facts. Geneva: World Health Organization, 2018, (https://www.who.int/ru/news-room/fact-sheets/detail/noncommunicable-diseases , as of 07/27/2022).
2. Report of the national study "Prevalence of risk factors for noncommunicable diseases in the Republic of Uzbekistan" based on the WHO standard STEPS methodology. – Tashkent. - 2019. - 135 p.
3. GBD 2015 Risk Factors Collaborators. Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. Lancet, 2016; 388(10053):1659-1724. doi: 10.1016/S0140-6736(16)31679-8.
4. European recommendations for the prevention of cardiovascular diseases in clinical practice (Revision 2016) // Russian Journal of Cardiology. - № 6. - (146). – p. 2017.
5. Plavinsky S.L. Measures to strengthen adherence to therapy. // 2007. – p.48.
6. Osterberg L., Blaschke T. Adherence to medication. // N Engl J Med. – 2005. –№5. - P.487-497
7. Makaryus AN, Friedman EA. Patients understanding of their treatment plans and diagnosis at discharge. Mayo Clin Proc. – 2005. - №8. – p.991-994.
8. Neutel JM, Smith DH, Improving patient compliance: a major goal in the management of hypertension. // J Clin Hypertens (Greenwich). – 2003. - №5(2). – p.127-132.
9. Narmukhamedova N.A., Khusinova Sh.A. Blood pressure control and its impact on improving adherence to treatment in patients with arterial hypertension. Journal of environmental health research. Volume 1 Issue 1 2022 ISSN 1477-9315 http://www.jehr-online.org/https: //doi.org/ 10.5281/zenodo.7257453 p.74-82
10. Adapted clinical protocols of the World Health Organization on major non-communicable diseases for primary health care institutions, 2021, p.50.
11. Narmukhamedova N.A., Khusinova Sh.A., Sadykkhodzhaeva D.A. Analysis of NCDs risk factors based on the results of the “STEPS” study (2019). Innovative technologies in healthcare: new opportunities for internal medicine. Materials of the II International Scientific and Practical Conference. SSMU, Samarkand,

2023, pp.274-275 Caetano J, Delgado Alves J, Heart rate and cardiovascular protection, Eur J InternMed (2015), http://dx.doi.org/10.1016/j.ejim.2015.02.009.

12. Piette JD, Heisler M, Krein S, Kerr EA. The role of patients-physician trust in moderating medication no adherence due to cost pressures.// Arch Intern Med. 2005. – 165 (15). – p.1749-1755.
13. Boudlaie, H., Boghosian, A., Ahmad, I., ...Wekke, I.S., Makhmudova, A. Investigating the mediating role of moral identity on the relationship between spiritual intelligence and Muslims' self-esteem ***HTS Teologiese Studies / Theological Studies***, 2022, 78(4), a7570
14. Makhmudova, A.N Factors and means of the content of legal socialization of the individual in modern civil society *Journal of Advanced Research in Dynamical and Control Systems*, 2020, 12(7 Special Issue), страницы 2038–2046
15. Nugmanovna, Makhmudova Aziza THE ROLE AND SIGNIFICANCE OF SOCIAL AND LEGAL CONTROL IN THE LEGAL SOCIALIZATION OF THE INDIVIDUAL IN THE MODERN CIVIL SOCIETY, INTERNATIONAL JOURNAL OF EARLY CHILDHOOD SPECIAL EDUCATION, https://www.int-jecse.net/media/article_pdfs/3783-3791.pdf Volume 14 - Issue 2 DOI: 10.9756/INT-JECSE/V14I2.410