

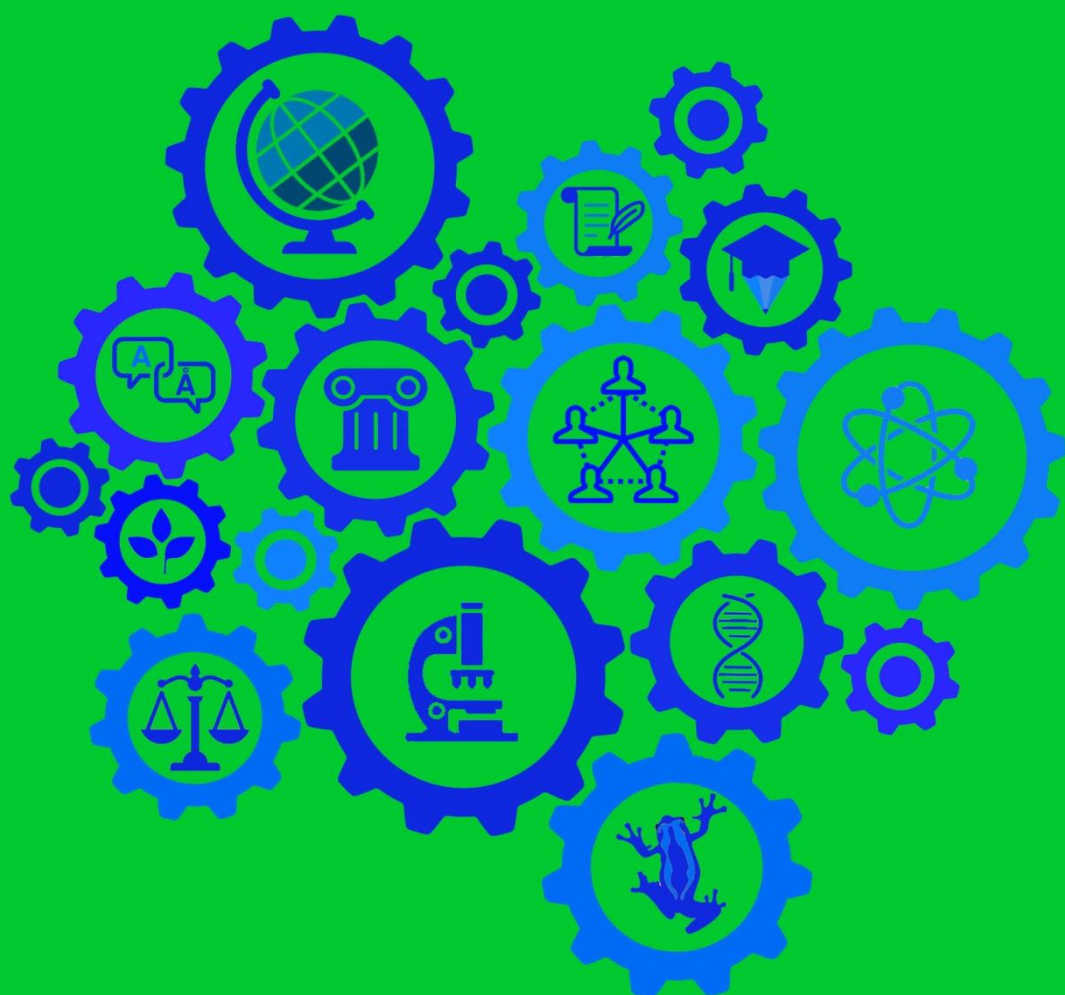
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## CONTROL OF THE MAIN RISK FACTORS OF HYPERTONIC DISEASE IN THE CONDITIONS OF THE PRIMARY LINE OF HEALTH CARE

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The past 5-year data from 222 randomly selected outpatient cards of hypertensive patients who were followed up at a family polyclinic (n=54) and in a number of rural ambulances (n=168) of the Republic of Uzbekistan were retrospectively analyzed. The physicians from the Tashkent family polyclinic and rural ambulances of a number of the Republic's regions, who had taken 10-month retraining courses for general practitioners, were questioned. Two hundred and fifty-six hypertensive patients followed up at the family hospital and rural ambulances were interviewed using questionnaires and examined. Then some of them (a study group) took a course of training at a school for the hypertensive patient and the others (a comparison group) did not participate in the education program. All the patients were followed up for 2 years with a subsequent reexamination and study. Most outpatient cards give recommendations for non-drug treatment incompletely. In a number of cases, the physicians who attach importance to the detection and correction of risk factors have substantially increased after education. The patients who had taken training courses were found to be significantly ( $p < 0,001$ ) more aware of their having hypertension and the major risk factors of hypertensive disease, to be more adherent to treatment, and to know its adequacy.

**Key words:** *arterial hypertension, hypertensive disease, school for the hypertensive patient, patient education.*

**Actuality.** In the Republic of Uzbekistan, as in all countries of the world [1, 2], arterial hypertension (AH) remains one of the urgent problems. This is confirmed by a one-stage epidemiological study of the population aged 20 to 79 years in one of the districts of Tashkent. The prevalence of hypertension in the population was 35.7%, incl. for men 28.1% and for women 40.6%. There was a significant increase in the prevalence of hypertension with the age of the surveyed: from 8.2% at the age of 20-

29 to 71.9% at 70 and more years. Regardless of gender, the most common in the surveyed population was the 1st degree of hypertension, detected in 66.2% of men and 60% of women; 2nd degree of hypertension in 16.2% of men and 25.2% of women; 3rd degree in 17.6% of men and 14.8% of women [3]. People with high blood pressure are at a significantly higher risk of stroke, coronary artery disease (CAD), other heart disease, and kidney failure. Effective control of hypertension presupposes not only the correctness of medical prescriptions (selection of the drug, dose, regimen, etc.), but also the correction of the main risk factors closely related to the patient's behavioral habits [4]. Most patients with hypertension have unfavorable risk factors that negatively affect the prognosis of the development and course of the disease. Only about 7-10% of hypertensive patients are under dispensary observation, however, these patients often retain high levels of risk factors, the target blood pressure is not achieved, which is unfavorable for the prognosis [5,6]. Numerous studies that have studied the causes of inadequate control of hypertension in real practice have shown that the main obstacle to improving the quality of medical preventive care is the low adherence of patients with hypertension to medical prescriptions [7,8,9,10]. Scientific research in recent years, aimed at studying the factors of increasing the adherence of patients to the fulfillment of medical prescriptions [5,6, 7,9,11,12,13], have shown that one of the main methods that increase the completeness and accuracy of the fulfillment of medical prescriptions is training patients [14]. It allows you to expand the sphere of influence of the doctor from the treatment of the disease to prevention. With this approach, medical control over the disease is complemented by the control of the factors of ill health caused by the patient's lifestyle, his habits, behavioral features that affect the health and course of the disease [11,12,14].

**Purpose of the study.** Increasing the effectiveness of prevention and treatment of hypertension (HD) by educating patients in "schools for hypertensive patients" at the level of primary health care.

**Material and methods.** A retrospective analysis (over the past five years) was carried out on 222 randomly selected outpatient cards from the number of patients undergoing dispensary observation with hypertension in family polyclinics (FP) (n=54) and in a number of rural medical centers (RMC) of the Republic of Uzbekistan (n=68 ). The data of the retrospective analysis of outpatient cards were compared with the results of the examination of patients (questioning, examination, anthropometry, measurement of blood pressure, determination of cholesterol, etc.).

Interviewed doctors of the FP in Tashkent and RMCs of the regions of the Republic, who underwent 10-month retraining courses for a general practitioner. Before training, 156 doctors were questioned, after training 119, and 236 patients were questioned and examined, who were on dispensary observation with hypertension in the FP / RMC. Subsequently, some of them ( $p = 122$ , the main group) completed the course at the school for hypertensive patients, and some ( $p = 114$ , the comparison group) did not participate in the educational program. All patients were under our supervision for 2 years, followed by repeated examination and examination. In the main group, the age of patients was 45-71 years, the average age was  $51.75 \pm 1.85$  g. Of these, men accounted for 29.5%, women - 70.4%. The distribution of patients by stages of the disease was as follows: Stage I - 45 (36.8%); HD II stage - 62 (50.8%); Stage III HD - 15 (12.2%). The crisis course of the disease was observed in 40 (32.7%) patients. As mentioned above, the comparison group consisted of 114 patients who were treated according to the traditional method in the FP / RMC and did not participate in the educational program. Of these women - 80 (70.1%), men - 34 (29.8%) aged 44-75 years, the average age is  $52.6 \pm 1.62$ . In this group, HD patients were divided as follows: Stage I HD - 41 (35.9%); Stage II HD - 61 (53.5%); Stage III HD - 12 (10.5%). The crisis course of the disease was observed in 37 (32.4%) patients. The groups were compared in terms of the main clinical and laboratory-instrumental parameters. In the main group of patients trained in school, the average risk was 46 (37.7%) patients, 63 (51.6%) patients had a high risk and 14 (11.4%,  $p < 0, 05$ ). The comparison group consisted of patients with an average risk of cardiovascular complications 41 (35.9%), with a high risk 62 (54.3%), with a very high risk 11 (9.6%,  $p < 0.05$ ), respectively.

**Results and discussion.** In a retrospective analysis of the risk factors recorded in the outpatient cards FP ( $n=54$ ) / RMC ( $n=168$ ), the following results were obtained: burdened heredity was established in FP 34 (62.9%) and RMC 88 (52.3%) cases, smoking - in FP 16 (29.6%) and RMC 47 (27.9%), overweight - in FP 18 (33.3%) and RMC 35 (20.8%), alcohol abuse - in FP 9 (16.6%) and RMC 37 (22.0), hypercholesterolemia in FP 21 (38.8%) and RMC 43 (25.6%), hypodynamia in FP 25 (46.2%) and RMC 57 (33.9%), stress - in FP 38 (70.3%) and RMC 115 (68.4%), respectively. In our study, the most common risk factors were burdened heredity, stress, overweight, physical inactivity. In most outpatient cards of FP / RMC, recommendations for non-drug treatment are given in an incomplete volume. The results are as follows - restriction of sodium chloride is recommended by 35 (64.8%)



FP doctors and 53 (31.5%) RMC doctors; auto-training 24 (44.4%) and 64 (38.0%); restriction of fat consumption 31 (57.4%) and 71 (42.2%); fluid restriction to 1-1.5 l / day 25 (46.2%) and 54 (32.1%); weight loss in obesity 37 (68.5%) and 71 (42.2%); smoking cessation 11 (20.3%) and 72 (42.8%); regular physical education is recommended by 37 (68.5%) and 67 (39.8%), respectively. A comparative analysis of retrospective indicators of outpatient cards with data from an oral survey of doctors and examination of the same patients revealed a significant discrepancy ( $p < 0.001$ ) of the above risk factors. These data allow us to conclude that the majority of patients did not undergo timely identification and correction of risk factors for hypertension. Studying outpatient cards, we drew attention to the groups and rules for prescribing antihypertensive drugs with proven efficacy. Doctors prescribe  $\beta$ -blockers in FP 44.4% - in the RMC 8.9%; diuretics 35.1% - 10.7%, respectively; calcium antagonists are prescribed in 24% in FP and 5.9% in the RMC; Angiotensin converting factor inhibitors 51.8% and 42.2%, respectively. Despite the fact that general practitioners still prescribe antihypertensive drugs recommended as the first line along with this, in the "other drugs" group, doctors prescribed dibazol, papazol, adelfan, raunatin, papaverine and noshpa, and in courses, without a specific mode and duration of admission.

As the analysis of outpatient cards shows, doctors regularly prescribe antihypertensive drugs in FP 35 (64.8%) and 30 (17.8%) in RMCs, in short courses - 19 (35.1%) and 138 (82%), respectively, the difference between them in both cases is highly significant ( $p < 0.001$ ). Based on these data, it can be assumed that not all general practitioners adhere to the principles of non-drug treatment methods and basic drug therapy based on continuous long-term administration of drugs in effective doses. When conducting an anonymous survey of FP and RMC doctors who underwent 10-month retraining courses before training, 156 doctors were interviewed (FP  $n=63$ ; RMC  $n=93$ ), after training 119 (52 and 67, respectively), an underestimation of risk factors and their correction by doctors was revealed in patients with hypertension. It should be noted that after training, the number of doctors who attach importance to identifying and correcting risk factors significantly increased ( $p < 0.001$ ). Thus, a decrease in the consumption of table salt, before training, was recommended by 46.0% of FP doctors and 30.1% of RMC doctors, after training 92.3% and 76.1%, respectively; weight loss before training 26.9% and 15.0%, after training 96.1% and 85.0%, respectively; limiting fat intake was

recommended before training by 20.6% and 16.1%, after training by 94.2% and 43.2%, respectively.

### **Research findings:**

1. At the level of primary care in patients with hypertension, risk factors are not fully identified; some of them are not corrected for the identified modifiable risk factors; the overwhelming number of patients use antihypertensive drugs in short courses (FP-35.1%; RMC-82%), not observing the regularity and duration (FP-64.8%; RMC-17.8%);

2. There is a low awareness of general practitioners about the principles of prevention and treatment of hypertension on an outpatient basis;

3. Patients with hypertension are not sufficiently aware of the risk factors (33.9%) that affect the course and prognosis of the disease; do not have the skills of self-control (63.3%) and self-help (75%) with an acute increase in blood pressure; there is a low adherence (24%) of patients to the implementation of medical recommendations;

4. Antihypertensive therapy in hypertensive patients who do not participate in the educational program - does not significantly affect the controllable risk factors and does not lead to the achievement of target blood pressure levels (29%);

5. "School of hypertensive patients" is an effective system for organizing patient education and conducting complex therapy in FP and RMC; reliably contributes to the prevention of cardiovascular complications, adequate control of blood pressure (96.7%);

6. Adequate pharmacotherapy is optimally possible in patients participating in the educational program; in our study, this training made it possible to achieve the target Arterial Pressure level in 82.7%, reduce the pharmacological load on the patient's body, and thereby reduce the number of adverse reactions of drug therapy.

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