

THE QUALITY ASSESSMENT OF HYPERTENSION TREATMENT IN PRIMARY HEALTH CARE OF FAMILY PRACTICE

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This article is devoted to the quality assessment of hypertension treatment in primary health care of family practice. It is shown that doctors in primary public health service insufficiently provide for correction of risk factors and diagnosis so that results into an inadequate choice of hypertension treatment. To improve the effectiveness of hypertension treatment it is necessary to approve the uniform standards, update the format of outpatient cards, manage regular training of cardiology physicians, and reduce their time spent on paperwork.

Key words: *arterial hypertension, family practice, risk factors of arterial hypertension, effectiveness of hypertension treatment.*

According to the World Health Organization data, high death rate due to cardiovascular diseases in the world, including Ukraine, is caused by seven major risk factors with arterial hypertension as the major cause. High arterial pressure is a powerful and independent risk factor for fatal and nonfatal cardiovascular events such as stroke and myocardial infarction: the higher the level of arterial pressure the higher the risk of cardiovascular complications. The benefits of high arterial pressure decrease are proven by international and domestic long-term multicenter control studies [1–2].

The trend to improved arterial pressure control, decrease in the incidence of strokes and increase in life expectancy is observed in the countries (the US, Finland, the UK, etc.) where measures to prevent hypertension are implemented on the state level. For many years these countries have gathered data on heart conditions such as hypertension, acute coronary syndrome, stroke, and others, which serve the basis for the clinical studies to identify deficiencies in the organization of health care and work out measures on its improvement [3–5].

According to controlled studies, the main conditions for the effective prevention of hypertension complications in the course of treatment are the achievement of the "target level" of arterial pressure and correction of modified risk factors for cardiovascular complications (smoking cessation, body weight correction and others). In Ukraine, most patients with arterial hypertension receive either inadequate treatment or no treatment at all. We observe a steady increase in the hypertension prevalence rates: it more than doubled compared to those in 1998, and increased by 170 % since 2000. The growth of this indicator serves as evidence of effective operation of primary health structures specialized in hypertension detection [6, 7].

The goal of our study was to evaluate the quality of hypertension treatment in primary health care of family practice.

MATERIALS AND METHODS OF THE RESEARCH

To accomplish this objective we used statistical data on population health status and activity of medical and sanitary-and-prophylactic institutions in the Kharkov and Sumy regions for the period 2002–2010, as well as materials on monitoring the development of the network of primary health care of family practice institutions and their activity for the similar period.

Outpatient cards of dispensary cases of arterial hypertension used in the analysis were selected randomly by a computer. The sample size depended on the number of hypertensive patients in the dispensary follow-up. Next, we

calculated the representative number of cards that must be analyzed in order to obtain objective information on the disease management quality. Total of 438 outpatient cards were used in the analysis.

The quality of hypertension treatment was assessed by the presence of written recommendations for lifestyle changes (effecting modified risk factors such as diet, salt intake restriction, physical activity), prescription of drugs scientifically proven to be safe and effective (consistent with the principles of evidence based medicine), duration of treatment (months and years), and the absence of prescribed course of treatment by antihypertensive drugs, as well as by the number of patients who achieved arterial pressure less than 140/90 mm Hg.

RESULTS

The study consisted of two stages. On the first stage we studied hospital cards of 458 hypertensive patients registered at the primary health care organizations. On the second stage we examined patients with arterial hypertension, who were trapped in a random sample from the register of patients observed at the primary health care organizations. The sample covered 178 patients, 128 (71.9 % response) of them were subject to comprehensive examination. According to the tenets of population-based studies response of over 70.0 % is sufficient for validity of the results. The clinical characteristic of patients under study is presented in Table 1.

We found that mostly women (60.3 %) seek medical help at the primary health care institutions. Average age of men and women was 56.4 and 58.4 years respectively, including 39.0 % employed, 43.5 % – people with disabilities, 14.9 % – pensioners, and 2.6 % (other) not included in any of the categories.

Table 1 – Clinical characteristics of the examined patients

Characteristic	Hypertension group (n = 438)
Age, years	56,74±7,89
Office systolic arterial pressure, mm Hg	142,37±8,87
Office diastolic arterial pressure, mm Hg	86,7±6,67
Glucose maintenance in blood on an empty stomach, mmol/L	4,8±0,88
Duration of a disease, years	6,38±1,65
Heredity on basic diseases, %	64
Smoking, %	32
Excess body weight, %	66

Average level of arterial pressure in 50% of the patients was in the range of 140/90 mmHg, in 25 % of hypertensive patients it was 160/99 mm Hg and higher, indicating that there was a large proportion of patients with so-called mild hypertension (first degree arterial hypertension). 25 % of the patients had arterial pressure within the range of 130/80 mm Hg, which is due to the fact that these patients, either "reach" target levels of arterial pressure at the time of their visit to a physician, or belonged to the category of people with so-called high normal arterial pressure.

According to the recommendations, all the steps to identify risk factors for cardiovascular disease (smoking, obesity, alcohol consumption, physical inactivity, impaired carbohydrate tolerance, high levels of total cholesterol) were taken only in 17.7 % of the cases involving hypertensive patients and were partially executed in 55, 3 % of the cases. Such a risk factor as

smoking was considered insufficiently: only 80.8 % of outpatient cards contained data on smoking. The situation on detection of such an important risk factor as excessive weight turned out to be even more inadequate at the primary care organizations. Body mass index was calculated in only a few cases (18 out of 438 dispensary patients). Angiotensin converting enzyme inhibitors were found among the drugs most frequently prescribed to arterial hypertension patients (81.6 %). Beta-blockers were administered in 38.1 % of the cases. Thiazide diuretics were administered in some cases – 26.3 % on average, which is not enough. We also considered the cases when drugs with unproven efficacy and safety were prescribed. Unfortunately, nearly quarter of the patients (22.8 %) were receiving drugs such as Cinnarizine, Cavinton, vitamins, Reserpine, Adelfan, Papaverine, Dibazol, etc. We conducted separate analyses of the cases of beta-blockers prescription in patients with arterial hypertension and coronary heart disease. Only quarter of the patients in need of beta-blockers, had them prescribed: 22 % out of 438 hypertensive patients had concomitant coronary artery disease, while only 5.3 % of the patients were given beta-blockers.

Arterial hypertension is known to be a chronic disease requiring constant drug intake. We were interested whether the physicians indicated the duration of antihypertensive drug use. It was found that only in 14% of the cases the patients were informed on the duration of the drug therapy. An average of 7.5 % of outpatient cards recorded long-term drug administration. It is obvious that only a few outpatients were receiving medication long-term and that physician ignored this important component of hypertension treatment. Besides, we analyzed the effectiveness of hypertension treatment by calculating the number of patients receiving antihypertensive therapy, and those with arterial pressure below 140/90 mm Hg. Achievement of target level of arterial pressure was recorded in only one-fifth of the cases. Insufficient doses and duration of medicament therapy, noneffective drug combinations and patients' failure to follow physician's advice could be the reasons of such low rates of improvement.

The obtained data on frequency of use of antihypertensive drugs is consistent with the data presented by pharmacoepidemiological studies. In many countries physicians prefer angiotensin converting enzyme inhibitors and calcium antagonists as the 1st series agents. However, in Ukraine the proportion of calcium antagonist use in the practice of physicians is rather small. Perhaps, despite the fact that new data from clinical studies has confirmed the preventive role of II–III generation calcium antagonists in hypertensive patients, especially in elderly people with cerebrovascular disease, Ukraine is still experiencing lasting consequences of campaign against calcium antagonists, although it had only to do with short-range Dihydropyridine.

One of the most important goals in treatment of arterial hypertensive patients is to achieve and maintain long-term target level of arterial pressure. Achievement of target arterial pressure was recorded in the outpatient charts of 46 % of hypertension patients, but only 22 % of the patients managed to maintain it for one year period. The main reason for this unsatisfactory situation is the lack of dynamic follow-up for the patients with arterial hypertension.

Thus, only 22 % of the patients were relatively actively observed by their primary care physicians and had their arterial pressure handled effectively, while treatment of 78 % of hypertensive patients did not achieve its goal. In general, it is shown that primary care physicians do not conduct the correction of health risk factors and diagnosis of target organ damage and/or associated clinical conditions, which leads to an underestimation of risks of cardiovascular complications and inadequate choice of treatment

tactics in hypertensive patients. Achieving and maintaining target arterial pressure is accomplished only in a fracture of total number of patients with arterial hypertension (22 %).

The reasons for insufficient observation of hypertensive patients are: deficient technical capacity, lack of uniform standards of disease management for hypertensive patients in primary health care, family physicians' insufficient knowledge of cardiology, and, possibly, the fact that physicians are overwhelmed by paperwork. The format of outpatient card is outdated since isolated data it provides does not give the physician adequate and comprehensive information on the patient. Therefore, it is necessary to develop a formalized outpatient card, which will enable the physician to work with health data quicker and more effectively.

PROSPECTS FOR FURTHER RESEARCH

To improve the effectiveness of disease management in hypertension patients, it is necessary not only to increase funds assigned to prophylaxis (healthy lifestyle promotion), modern equipment for outpatient clinics, but also to adopt uniform standards for disease management for this class of patients, update the format of outpatient card, provide regular continuing-education classes in cardiology for the physicians at outpatient departments, and reduce their paperwork load.

CONCLUSION

1. Active, committed identification of hypertension in primary health care contributes to the timely treatment of high arterial pressure and complication prevention. Ischemic heart disease, diabetes, excess weight, and obesity are the main causes and risk factors of hypertension in Ukraine.

2. In general, we find that primary care physicians do not conduct the correction of health risk factors and diagnosis of target organ damage and/or associated clinical conditions, which leads to an underestimation of risks of cardiovascular complications and inadequate choice of treatment tactics in hypertensive patients. Achieving and maintaining target arterial pressure is accomplished only in a fracture of the total number of patients with arterial hypertension (22 %).

3. In the treatment of comorbid pathology of cardiovascular system in patients with type II diabetes it is necessary to increase the frequency of prescribing angiotensin converting enzyme inhibitors or Sartans, Beta-blockers, and statins.

ЯКІСТЬ ЛІКУВАННЯ АРТЕРІАЛЬНОЇ ГІПЕРТЕНЗІЇ В ЗАКЛАДАХ ПЕРВИННОЇ МЕДИКО-САНІТАРНОЇ ДОПОМОГИ НА ЗАСАДАХ ЗАГАЛЬНОЇ ПРАКТИКИ – СІМЕЙНОЇ МЕДИЦИНИ

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Стаття присвячена оцінці якості лікування артеріальної гіпертензії в закладах первинної медико-санітарної допомоги на засадах сімейної медицини. Досліджено, що лікарі первинної ланки охорони здоров'я недостатньо проводять корекцію факторів ризику та діагностику УОМ, що призводять до неадекватного вибору тактики ведення хворих на артеріальну гіпертензію. Для поліпшення ефективності ведення таких хворих необхідно прийняти єдині стандарти: змінити форму амбулаторної карти, постійно проводити підвищення кваліфікації лікарів із кардіології, знизити зайнятість медичного персоналу оформленням документації.

Ключові слова: артеріальна гіпертензія, сімейна медицина, фактори ризику артеріальної гіпертензії, ефективність лікування.

**КАЧЕСТВО ЛЕЧЕНИЯ АРТЕРИАЛЬНОЙ ГИПЕРТЕНЗИИ В УЧРЕЖДЕНИЯХ
ПЕРВИЧНОЙ МЕДИКО-САНИТАРНОЙ ПОМОЩИ ОБЩЕЙ ПРАКТИКИ –
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Статья посвящена оценке качества лечения артериальной гипертензии в учреждениях первичной медико-санитарной помощи семейной медицины. Исследовано, что врачи первичного звена здравоохранения недостаточно проводят коррекцию факторов риска и диагностику УОМ, способствующую неадекватному выбору тактики ведения больных артериальной гипертензией. Для улучшения эффективности ведения таких больных необходимо принять единые стандарты: заменить форму амбулаторной карты, постоянно проводить повышение квалификации врачей по кардиологии, снизить занятость медицинского персонала оформлением документации.

Ключевые слова: артериальная гипертензия, семейная медицина, факторы риска артериальной гипертензии, эффективность лечения.

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