

*KETEVAN UKLEBA, LAGI GVETADZE*  
**MODIFICATION OF ANGINA PECTORIS RISK FACTORS IN THE PRIMARY  
 HEALTHCARE SYSTEM**

Kutaisi University, Akaki Tsereteli State University, Faculty of Medicine, Kutaisi, Georgia

Doi: <https://doi.org/10.52340/jecm.2024.02.01>

*ქეთევან უკლება, ლაგი გვეტაძე*  
**სტენოკარდიის რისკის ფაქტორების მოდიფიკაცია პირველადი ჯანდაცვის სისტემაში**  
 ქუთაისის უნივერსიტეტი, აკაკი წერეთლის სახ. სახელმწიფო უნივერსიტეტი,  
 ქუთაისი, საქართველო

### რეზიუმე

შრომის მიზანი იყო სტენოკარდიის მქონე პაციენტების მომსახურების ხარისხის გაუმჯობესება პირველად ჯანდაცვაში. შრომას საფუძვლად დაედო პაციენტთა სამედიცინო მომსახურების აუდიტი, რომელიც ჩატარდა ქუთაისის საოჯახო მედიცინის ცენტრში. კვლევამ აჩვენა, რომ პირველად ჯანდაცვაში სტენოკარდიის მქონე პაციენტების მომსახურების პროცესი მოითხოვს გაუმჯობესებას - ჯანდაცვის ცენტრმა უნდა გააძლიეროს მუშაობა პაციენტთა სამედიცინო განათლებისათვის, რათა უკეთ მოხდეს დაავადების ისეთი რისკ-ფაქტორების მოდიფიკაცია, როგორცაა არტერიული ჰიპერტენზია, ადინამიური ცხოვრების წესი, თამბაქოს მოხმარება, მაღალი სხეულის მასის ინდექსი და სხვა. საჭიროა მედიკონალისათვის აუდიტის შედეგების გაცნობა და რეაუდიტი, ჩატარებული ღონისძიებების ეფექტურობის შესამოწმებლად.

Angina, also known, as angina pectoris, is chest pain or pressure, usually caused by insufficient blood flow to the heart muscle (myocardium). It is most commonly a symptom of coronary artery disease. Angina is typically the result of partial obstruction or spasm of the arteries that supply blood to the heart muscle [1,2]. The main mechanism of coronary artery obstruction is atherosclerosis, as part of coronary artery disease. Other causes of angina include abnormal heart rhythms, heart failure and less commonly anemia [2,4].

There is a relationship between severity of angina and degree of oxygen deprivation in the heart muscle. Angina results, when there is an imbalance between the heart's oxygen demand and supply.

Angina due to ischemic heart disease affects approximately 112 million people being slightly more common in males, than females (1,7% to 1,5%) [3].

Large-scale, multicenter studies have established that adequate control of angina pectoris reduces the development of heart attacks and strokes at the population level, as well as the risk of death caused by this disease [5,6,7].

The given topic for research was selected by us for the following reasons:

Angina is a common chronic disease all over the world and is also an important problem in our country. The problem of the disease is defined by the fact that leaving it without control leads to disability and premature death of the patient, which leads to material, psychological and social loss of the society. In the case of good management of the condition, modification of risk factors and correct treatment, which is based on scientific-practical studies, it becomes possible to avoid complications and quality years of the patient's life [7].

It should be noted that the primary care team has the ability to educate the patient, systematically monitor the disease and provide effective treatment.

#### **Purpose of the study:**

The purpose of our study was to improve the quality of service for patients with angina pectoris at the primary care level.

#### **Research tasks:**

1. Ensuring regular monitoring of patients with angina pectoris
2. Detection of risk factors and their modification

The work was based on the medical audit of patients with angina pectoris, which was conducted at the Kutaisi Family Medicine Center.

#### Material and research methods:

The medical history of 75 patients with angina pectoris was selected for the work. Information was collected by interviewing family doctors, as well as by records in medical histories. Criteria were selected for the audit and standards were established.

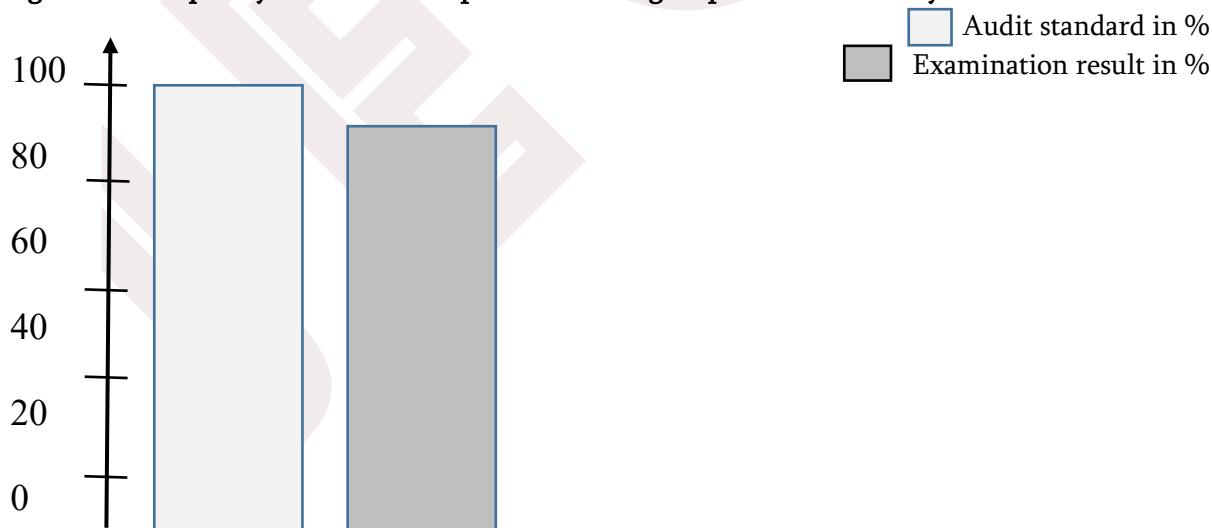
**Table N1. Audit criteria and established standards in patients with angina who were registered in the primary care system**

Criterion	Standard time	Standard	result
1. Frequency of referral of patients to the primary care center	1 year	100%	90%
2. Defining of lipid spectrum in blood serum	1 year	100%	60%
3. Good blood pressure control	1 year	65%	50%
4. Smoking cessation	1 year	100%	70%
5. Dosed physical activity	1 year	100%	40%
6. Body mass index correction	1 year	100%	65%
7. Cardioprotective diet		100%	62%

#### Obtained results and their analysis:

Patients with angina pectoris should be consulted in primary health care at least 4 times a year. As can be seen from the data (diagram 1), the frequency of treatment is quite high and is equal to 90%. ( $p < 0.05$ ) patients are informed and pay attention to this issue. What is considered the success of the primary care team (family doctor, nurse, registrator) should be the efficiency of the call system, which leads to regular patient visits.

**Diagram N1 Frequency of referral of a patient with angina pectoris to a family medicine center**



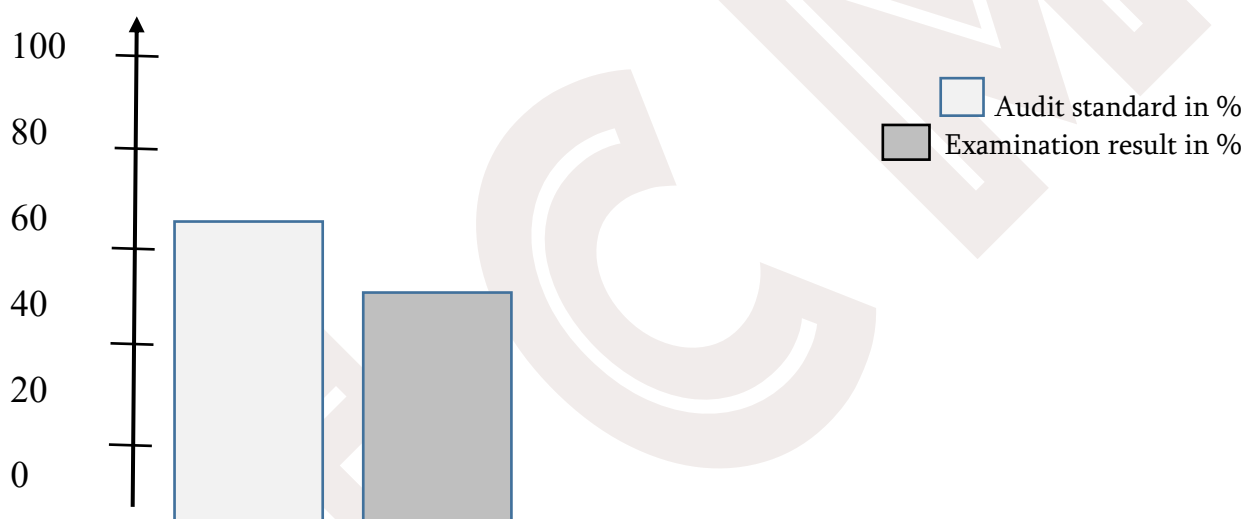
As for the successful control of the lipid profile (both high specific weight and low specific weight lipoproteins in the blood, 4 times a year), it does not reach the standard and is equal to 60% (diagram N2), However, this factor is one of the most important in the health care of patients with angina pectoris.

According to the conducted research, blood pressure control also does not reach the standard and is equal to 50% ( $p < 0.05$ ). Patients arbitrarily violate the regimen, they cannot adequately assess the effect of this risk factor and the severity of complications.

Diagram N2. Determination of lipid spectrum in blood serum of patients with angina pectoris

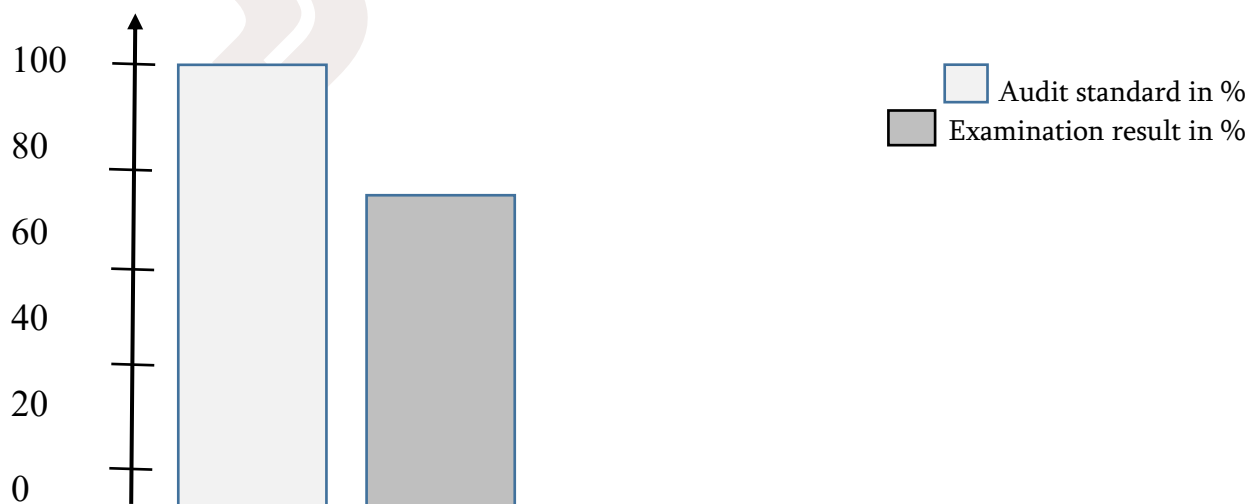


Diagram N 3. Blood pressure control in patients with angina pectoris



Research has shown that the criterion for stopping tobacco use, instead of 100%, is 70% ( $p < 0.05$ ). Unfortunately, patients still do not realize the great role of this cardiovascular risk factor in the development of angina pectoris. An individual strategic plan for stopping nicotine consumption has not been developed for each smoker. Medical histories did not always include advice for smokers, information about the harmful effects of nicotine.

Diagram N 4. Smoking cessation in patients with angina pectoris



The result of the dosed physical activity criterion also does not reach the standard and is quite far from it by 30% ( $p < 0.05$ ). This can be explained by the insufficient attention of the primary care team (doctor, nurse) and patients to this issue.

According to the conducted research, the correction of the body mass index is 65% ( $p < 0.05$ ). The difference between the standard and the result is explained by insufficient information of the patients about the given problem by the doctors.

As for the cardioprotective diet - preference for fruits and vegetables in meals, intake of dairy products, restriction of saturated fats, preference for white meat, fish and seafood compared to beef, its result is 68% ( $p < 0.05$ ) and does not reach the standard - 100%.

So, it is necessary to work seriously in order to raise the patient's medical education to a higher level by conducting clinical lectures and conversations, by providing information about risk factors. We should inform the medical staff of the results of the audit, as well as remind them of the need to conduct a re-audit in order to achieve the effectiveness of the specified measures.

#### References:

1. Dorland's illustrated medical dictionary, Philadelphia, PA: Saunders 2003; p.82. ISBN 0721601464. Retrieved 24 August 2022.
2. American Heart Association (8 November 2021).
3. Simons M. et al. New therapies for angina. [www.uptodate.com/contents/search](http://www.uptodate.com/contents/search) Accessed Dec.21, 2021.
4. Angina. National Heart, Lung and Blood Institute [www.nhlbi.nih.gov/health-topics/angina](http://www.nhlbi.nih.gov/health-topics/angina) Accessed Dec. 21, 2021.
5. Bonow RO et al. Stable ischemic heart disease. In: Braunwald's heart disease: A Textbook of cardiovascular medicine 12th ed. Elsevier, 2022. [www.clinicalkey.com](http://www.clinicalkey.com). Accessed Dec. 21, 2021.
6. Goldman L et al. eds. Angina pectoris and stable ischemic heart disease. In: Goldman-Cecil Medicine. 26th ed. Elsevier; 2020. [www.clinicalkey.com](http://www.clinicalkey.com). Accessed Dec. 21, 2021.
7. [www.gfma.ge](http://www.gfma.ge)

*KETEVAN UKLEBA, LAGI GVETADZE*

#### **MODIFICATION OF ANGINA PECTORIS RISK FACTORS IN THE PRIMARY HEALTHCARE SYSTEM**

Kutaisi University, Akaki Tsereteli State University, Faculty of Medicine, Kutaisi, Georgia

#### **SUMMARY**

The purpose of our research was to improve the quality of primary medical services provided to patients with angina pectoris. The research was based on the audit of medical services conducted at Kutaisi family medical center. Medical history/map of totally 75 patients were selected.

The results of the conducted audit revealed that the quality of primary medical services provided to patients with angina pectoris, require serious improvement: It is necessary to increase the number of applications from the patients with arterial hypertension, that requires better develop calling system for patients, that will ensure their regular visits. As for the research on cardio protective diet, it is reported to reach 62% among patients, indicating, that the medical personal is not taking sufficient efforts. It is absolutely necessary to conduct lectures and educational campaigns for patients, at medical facilities about modifications of each risk factor causing arterial hypertension, non-dinamic lifestyle, smoking tobacco, excess weight, etc. It is vital to repeat audit in order to confirm effectiveness of the above measures taken.

**Keywords:** angina pectoris, risk factors, primary healthcare

