

IMPROVE THE QUALITY OF CONTROL OF TYPE 2 DIABETES MELLITUS BASED ON PEN PROTOCOLS AMONG THE POPULATION OF THE SAMARKAND REGION

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Abstract: It calls for comprehensive measures to combat risk factors through the treatment and care of patients with non-communicable diseases. Due to the increased number of deaths from diabetes, complications such as myocardial infarction and stroke, the use of standard medicines and the prevention of complications of this disease are aimed at reducing the number of deaths. The main goal is to evaluate the tactics of treatment of patients diagnosed with diabetes based on the implementation of PEN protocols among the population. Based on the plan, within 3 months, every month, 50 people over 40 years of age were invited to KVP, they were questioned and examined by clinical protocol, and laboratory and instrumental tests were conducted. Regular screening can quickly identify individuals with risk factors, including those with diabetes. Their timely treatment prevents the development of complications and is aimed at reducing the percentage of early death.

Key words: Non-infectious diseases, type 2 diabetes, screening, ECG, laboratory analyses.

Cardiovascular diseases, cancer, chronic respiratory diseases, diabetes mellitus and other non-communicable diseases are the leading causes of morbidity and mortality worldwide [10]. They also appear on the list of leading causes of disability.

According to WHO, there are about 57 million people worldwide every year. people die, 36 million of them. (63%) of deaths are associated with cardiovascular diseases. Approximately 14 million. a person does not live to be 70 years old, that is, he dies prematurely. At the same time, according to WHO forecasts, if effective measures are not taken, mortality from infectious diseases throughout the world will increase without deviation and reach almost 75% in 2030 [9].

The socioeconomic consequences of cardiovascular disease affect the quality of life of the patient, his family, as well as the economy, health care system and society as a whole. 60% of cases of their development are associated with leading risk factors, such as tobacco smoking, alcohol abuse, insufficient consumption of fruits and vegetables, and a sedentary lifestyle [2,4].

These risk factors lead to the development of conditions such as overweight and obesity, high blood pressure, high blood sugar and cholesterol, which are the causes of their development among the population [6,12]. The results of scientific studies conducted in Uzbekistan showed that the prevalence of risk factors for the development of non-communicable diseases is constantly growing [5,11]. In the current trend in the prevalence of the above risk factors, there is a high level of premature mortality among the population aged from 2020-2030 to 40-60 years [3,8].

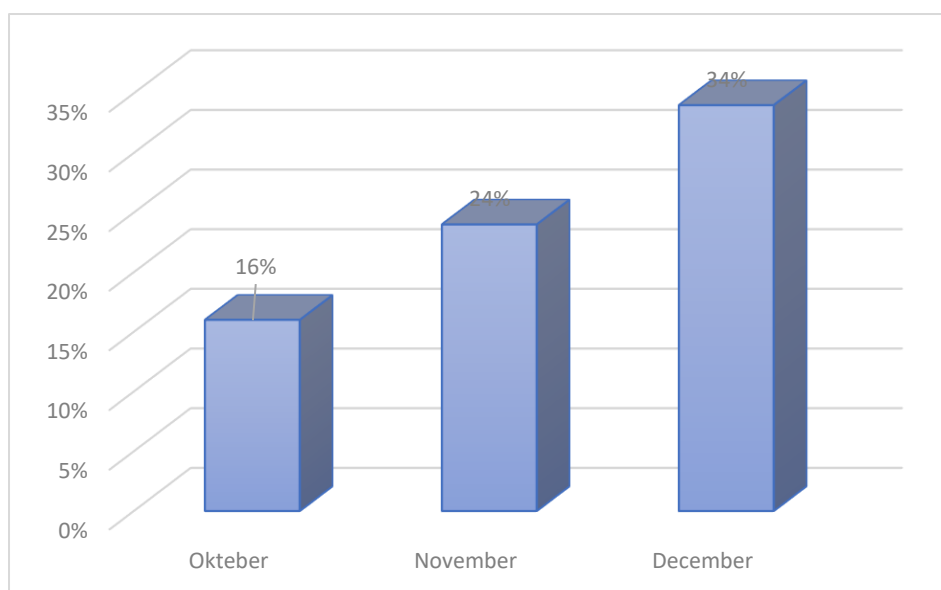
There was no increase in mortality from diabetes, or an increase in the number of complications such as myocardial infarction and stroke. The main purpose of using standard drugs is to prevent complications of the same disease and reduce mortality [1,7].

Objective: to evaluate the tactics of managing patients with diabetes mellitus based on the introduction of PEN protocols among the population of the Samarkand region.

Materials and methods. The study was conducted on the territory of the Uzbekistan SVP in the Jambay district of the Samarkand region among the population aged 40 years and older. In the SVP in 2022-2023, as a result of a medical examination of the population who came to see a doctor, identified patients were admitted. The examination was carried out by 2 doctors and 5 paramedical workers in the SVP. The survey work was carried out retrospectively and the following medical documentation was used: outpatient card F-025/u, stat card-25-g/u, doctor's appointment log, laboratory analysis log.

Results. From October 2022-2023 the implementation of PEN protocols began. According to the plan, within 3 months it is planned to invite more than 50 people over 40 years of age to SVP and conduct interrogation and examination, laboratory and instrumental studies according to the clinical protocol. When the results were noticed in January 2023, it turned out that 150 people were examined over three months, they were sent for a laboratory and instrumental examination, where a consultation was written on the outpatient cards. But when checking the reviews, it turned out that there are also disadvantages (1 picture).

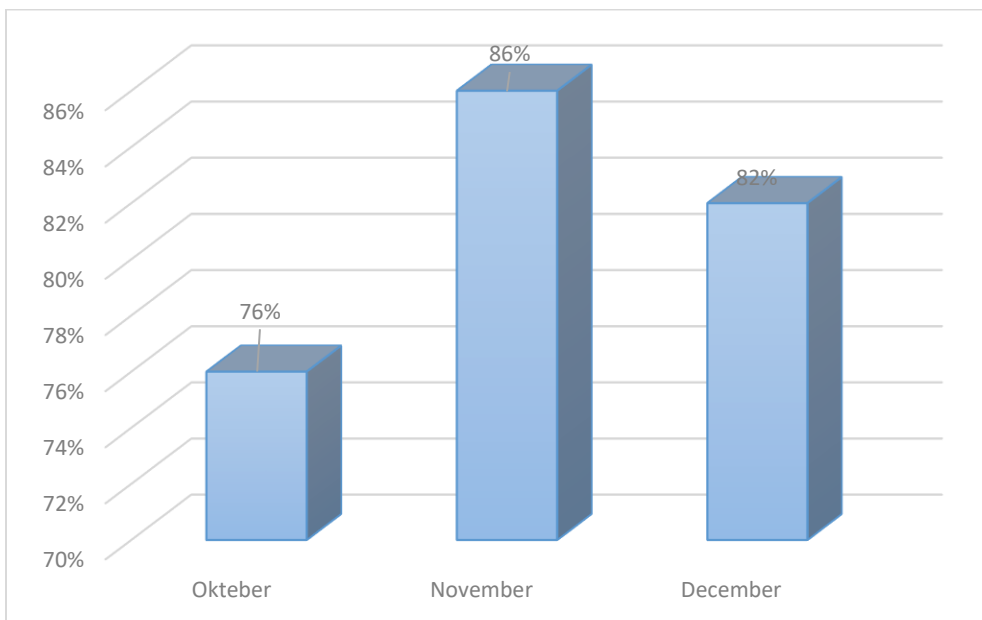
1 picture. Distribution of patients with ECG



According to PEN protocols, all those who came for screening must undergo an ECG examination, but only 20 patients who came in October had ECG records in their outpatient records, 28 who came in November and 27 who came in December.

So, they either failed the ECG check or took the ECG tapes home with them, nurses are not monitoring the same process. Through the PEN protocol it is necessary to determine the amount of sugar in the blood of people over 40 years old; there was a recommendation to determine the amount of sugar in outpatient cards, but there are no tests on the table. Diabetes mellitus from 150 people are found on 122 outpatient cards, in October - on 38, in November - on 43, and in December - on 41 cards (diagram № 2).

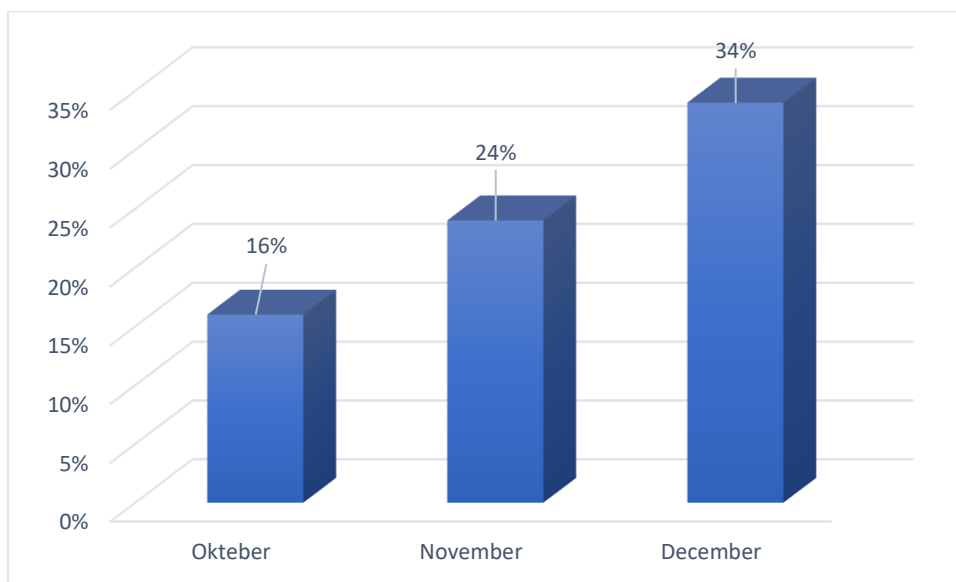
Diagram №2



Distribution of patients with blood sugar levels (%)

According to the recommendations of the PEN protocols for determining blood cholesterol in every population over 40 years of age, analysis of this indicator is found in very few outpatient records. In October, 8 outpatient records were analyzed, in November – 12, and in December – only 17 (diagram № 3).

Diagram №3



Distribution of patients according to blood cholesterol analysis (%)

The next indication is to determine the body mass index by increasing this weight and height. Over 3 months, 150 people came for screening, of whom 73 percent were overweight and obese (48.6%). Of these, 12 units revealed 2 types of diabetes mellitus (Table 1).

Table 1. Newly diagnosed patients with type 2 diabetes

№	Months	Population	Overweight and obese patients		Patients with type 2 diabetes mellitus	
			quantitu	%	quantitu	%
1.	october	50	20	40	3	15
2.	november	50	26	52	4	15,4
3.	december	50	27	54	5	18,5
	In total	150	73	48,6	12	16,4

Discussion: The implementation of WHO PEN clinical protocols provides for routine screening with the invitation of all persons over 40 years of age to the SVP, collection of complaints and anamnesis, examination of patients and laboratory and instrumental examination, which must be fully completed by everyone.

At the same time, doctors and nurses must work as a team and constantly monitor patients' visits to the doctor, timely completion of tests, and check the availability of tests in outpatient records. An audit of outpatient records showed that the screening was carried out according to plan and in 3 months 150 patients over the age of 40 came to the SVP; the outpatient records contain records of the consultation and recommendations for undergoing laboratory and instrumental examinations. It was found that about half of patients over 40 years of age are overweight or obese, and new cases of type 2 diabetes have been identified among them. These patients were prescribed additional examination and consultation with an endocrinologist to prescribe medication. Some outpatient records revealed a lack of blood tests for cholesterol, sugar and electrocardiograms. It is recommended that medical personnel, especially nurses, review all outpatient records and re-refer patients for blood tests and ECG.

Conclusions. Thus, conducting routine screening allowed us to quickly identify people with risk factors, including patients with diabetes. Timely screening and treatment will prevent the development of complications, as well as reduce the percentage of premature mortality from non-communicable diseases. They are also included in the list of the main causes of disability.

Literature/ Reference:

1. Irina Agababyan, Sitora Soliyeva, Yulduz Ismoilova. Condition of Coronary Arteries and Change of Lipid Profile in Coronary Heart Disease. *Annals of R.S.C.B.*, ISSN:1583-6258, Vol. 25, Issue 1, 2021, Pages. 207 – 213. ORCID iD <https://orcid.org/0000-0003-2650-4445>St.
2. Kholboev S.B., Rakhimova H.M., Sulaymanova N.E. The State of the Intestinal Microflora and Assessment of the Health State among People with Impaired Glucose Tolerance. *Annals of R.S.C.B.*, ISSN:1583-6258, Vol. 25, Issue 1, 2021, Pages. 163 - 176 Received 15 December 2020; Accepted 05 January 2021.
3. Khusinova Sh.A.1, Khakimova L.R.2, Ablakulova M.Kh.3, Yuldashova N.E. Assesment of the Information of Polyclinic Doctors about the Principles of Rational Purposing of Medicines *Annals of R.S.C.B.*, ISSN: 1583-6258, Vol. 25, Issue 1, 2021, Pages. 6576 – 6581. <http://annalsofrscb.ro>
4. Rakhimova H.M., Sulayemanova N.E. Recommendations for the prevention of coronavirus infection among the population aged 60 years and older. *Zh: Cardiorespiratory research. Quarterly scientific and practical journal.* Issue No. 1. 2020. page 85.
5. Sulaymanova N.E., Rakhimova H.M., Yuldashova N.E. Features of the appointment of drugs for elderly patients. *J. Cardiorespiratory Research Special Issue 2*, 2021, pp. 113-118.

6. Xolboyev S.B., Raximova X.M., Sulaymanova N.E. The State of the Intestinal Microflora and Assessment of the Health State among People with Impaired Glucose Tolerance. *Annals of R.S.C.B.*, ISSN:1583-6258, Vol. 25, Issue 1, 2021, Pages. 163 - 176 Received 15 December 2020; Accepted 05 January 2021.
7. Yuldashova N.E., Sulaymanova N.E., Abdukhaniyeva D.H. Identification of cardiovascular diseases and their risk factors in the practice of a family doctor. *Zh. Cardiology of Uzbekistan* No. 3, 2021 of the International Scientific and Practical Conference of Cardiologists "Innovative approaches in the diagnosis and treatment of cardiovascular diseases" (November 12-13, 2021) Page 29.
8. BTSE muassasalari uchun arterial hypertension va kandli diabetes b'yyicha moslashtirilgan clinic protokollar. Tashkent 2018, PEN WHO Clinical protocols of PEN for the treatment of arterial hypertension and diabetes mellitus for primary health care institutions. Tashkent 2018 PEN WHO.
9. Collection of clinical protocols on endocrinology for 2018. Tashkent
10. The role of screening in the work of general practitioners / Khusinova Sh.A., Narmukhamedova N.A. Proceedings of the 4th International Scientific and Practical Conference «Scientific horizon in the context of social crises» / Tokyo, Japan, 6-8.05.2020, p.219-223
11. Improving the quality of medical care through the implementation of WHO PEN protocols / Narmukhamedova N.A., Khusinova Sh.A. Proceedings of the 4th International Scientific and Practical Conference «International forum: problems and scientific solutions» / Melbourne, Australia, 16-18.06.2020, p.167-172
12. WHO fact sheet. Noncommunicable diseases. Key facts [website]. Geneva: World Health Organization; 2018 (<https://www.who.int/ru/news-room/fact-sheets/detail/noncommunicable-diseases>, accessed 27 July 2022)
13. Kutishenko N.P., Tolpygina S.N., Lukina Yu.V. et al. Efficacy and safety of drug therapy in primary and secondary prevention of cardiovascular diseases. *Rational Pharmacotherapy in Cardiology* 2011. 7(5S), pp.2-72.
14. Marinina E.S., Nagibin O.A. Scientific substantiation of the main ways of preventing cardiovascular diseases. *UNIVERSUM: medicine and pharmacology*, 2018. (2 (47)), pp.4-9.
15. Okrugin S.A., Garganeeva A.A., Kuzheleva E.A., et al. Assessment of the influence of a history of myocardial infarction and pre-infarction condition on the duration of the pre-hospital stage of acute myocardial infarction. *Complex issues of cardiovascular diseases*. 2016. 5(1). p.55-59.
16. Soleeva S.Sh. Statins and proinflammatory cytokines in coronary heart disease after coronary vessel stenting. *Journal of cardiorespiratory research*. 2022. No.3(2).
17. Ellamonov S.N., Tashkenbaeva E.N., Abdieva G.A., et al. Factors of arterial hypertension progression in patients with comorbidity with type 2 diabetes mellitus. *Journal of cardiorespiratory research*, 2021. 2(2).