



Economic affordability of treatment of type 2 diabetes mellitus with metformin for the population of the Kyrgyz Republic

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Relevance

In the Kyrgyz Republic, there are a total of 75,246 people registered with diabetes mellitus (DM):

DM 1 - 2328 people

DM 2 - 72918 people

Every year, the number of newly diagnosed patients is more than 10% of the total number of registered patients with type DM 2

Metformin is the first-line drug for starting therapy for the majority of patients. The issues of affordability of Metformin for patients with Dm2 are relevant

Objective: To study of affordability of metformin for patients with type 2 diabetes mellitus.

Market

There are 10 trade names on the market containing the active substance Metformin, with doses of 500 mg, 850 mg and 1000 mg, packaged in 30, 60 and 120 tabl. Every year the country imports on average Metformin:

1000 mg	- 135,000 packs
850 mg	- 142,000 packs,
500 mg	- 117000 packs.

Analysis of the physical availability of Metformin for the treatment of patients with DM 2



Results and discussion

Tablets account for more than 60% of the import structure with an average price of 5 doll. USA

Metformin tablets is 6 times more than the estimated quantity that is needed to treat all registered patients with type 2 diabetes

Materials and Methods

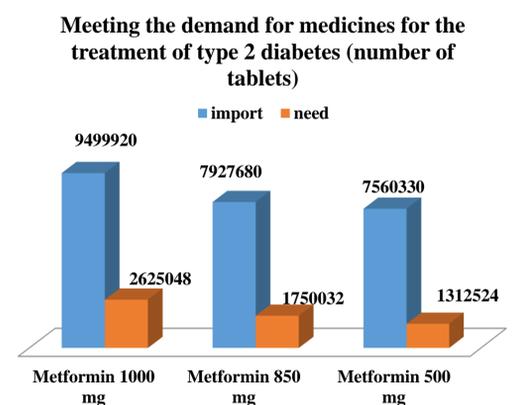
Materials: Statistical data of the Ministry of Health, Department of Medicines, Medical Insurance Fund of the Kyrgyz Republic.

Methods:

The economic affordability of Dm2 treatment was estimated using the methodology developed by WHO and the International Actions in the field of healthcare.

An average daily dose of 2000 mg was taken to calculate the economic costs of a monthly course of pharmacotherapy of Dm2 with metformin.

Statistical treatment



Economic affordability of treatment of type DM 2 with metformin

In 2019, rules for regulating prices for medicines were approved in the Kyrgyz Republic.

The maximum retail price of metformin drugs varies depending on the country of production:

Metformin 500 mg tablet p.o. №30	0.8	→	2.42 US dollars
Metformin 850 mg tablet p.o. №30	1.35	→	2.42 US dollars
Metformin 1000 mg tablet p.o. №30	1.58	→	5.06 US dollars

The economic affordability coefficient

The economic affordability coefficient (AEC 1), depending on the level of average salary, is available for patients with DM 2

Metformin	KED 1	KED 2
1000 mg No.60	0.84	2.48
850 mg No. 60	0.86	2.53
500 mg No. 120	0.53	1.48
850 mg No. 120	0.35	1.03

Since 2020, Metformin has been available with preferential prescriptions.

In 2021, 38,400 preferential prescriptions were sold from Metformin trade names.

55% of the reimbursement amount was spent on drugs containing metformin with a price of more than \$5.

The cost of a monthly course of treatment for patients with DM 2 with Metformin :

2.75 US dollars - 850 mg, No. 120 at a price of 4.7 US dollars

18.5 US dollars - 500 mg No. 30 at a price of 4.7 US dollars

Advantageous packaging for patients:

Tablets with a dosage of 1000 mg and 850 mg with packaging No. 120 and No. 60.

The economic affordability coefficient (KED 2), taking into account the cost of living varies from **1.03 to 6.94.**

therefore, none of the trade names of metformin are available to the public.

Conclusion

Surveys on the economic affordability of Metformin drugs for the treatment of DM 2 remain relevant. It is necessary to optimize existing reimbursement and price regulation mechanisms

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