Insulin Pump Therapy Implementation In Uzbekistan

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Background: Devices for continuous subcutaneous insulin infusion have become fundamentally new and progressive step in the treatment of diabetes.
Aims and objectives: To evaluate the effectiveness of insulin pump therapy in comparison with the regime of multiple daily injections (MDI) of insulin.

Materials and methods: Forty children and adolescents with type 1 diabetes from 5 to 17 years (28 girls and 12 boys) were examined. All patients were divided into 2 groups. Group 1 consisted of patients who were transferred from the baseline bolus scheme of insulin therapy with human insulin to MDI with combination of a human insulin analog and a short-acting insulin. Group 2 includes patients who were transferred to pump insulin therapy and received ultrashort acting insulins. Glycemia and glycated hemoglobin were monitored Within 12 months,

Results: The comparative analysis showed a significant decrease in glycated hemoglobin (7.9 + 0.3) by 2.3% in group 2, compared with children and adolescents on the MDI regime (HbA1c 7.8 + 0.3%, decrease by 1.5%). The proportion of patients with a HbA1c level of less than 7.5% on MDI increased from 20% to 50%, and in the group receiving insulin pump therapy increased from 15% to 50%. Target values of HbA1c <7.5% reached 50% of patients in groups 1 and 2.

Conclusion: On insulin pump therapy HbA1c decreased by 2.3%. The target values of HbA1c reached 50% of the patients in both groups.

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