

Cost-of-illness in Adults with Diabetes Mellitus Type I in the Russian Federation

Bessonova T., Fedina E., Ratushnyak S., Ratushnyak E.

Center of Healthcare Quality Assessment and Control at the Ministry of Health of the Russian Federation

1 OBJECTIVE

The estimated number of patients with type I diabetes mellitus (DM) in Russia reached 221 244 patients in 2019. This study aimed to quantify the costs associated with type I DM in Russia for adults in 2019 RUB prices.

3 RESULTS

Yearly per patient costs of the DM management for the complication-free patient constituted RUB73 390 (US \$1 020). Annual mean costs for any complication diagnostics and relief reached RUB237 599 (US \$3 303) per patient. Mean per capita cost of diabetes management given complication structure in Russia totalled RUB184 968 (US \$2 571). Overall cohort costs reached RUB41 billion (US \$569 million) per annum.

73 390
RUB

Cost of complication free DM
vs.
DM with complications

184 968
RUB

2 METHOD

We aimed to quantify direct costs of DM management including drug therapy, ambulance services, routine specialists' visits, DM complications' diagnostics and consequent hospitalizations, self-monitoring of blood glucose using a glucometer (SMBG). DM complications comprised of hyperglycemia, retinopathy, neuropathy, nephropathy and cardiac complications. We also included costs of the forthcoming interventions due to complications experienced, including eye surgery, amputation, myocardial revascularization and dialysis. Data on the number of patients and their characteristics, complications' frequency and hospitalization length was drawn from published literature based on the national diabetes registry. Drug mix and SMBG frequency for diabetes and complications were determined using national standards of care. Other costs were based on federal medical tariffs.

4 CONCLUSIONS

Type I diabetes is associated with significant resource burden in Russia which brings attention to the problem of diabetes' complications prevention. As compared to the cost of complications relief, complication free diabetes yields humble costs. Further research ought to analyze the burden of indirect costs associated with diabetes in Russia.