BACKGROUND:
Chronic immune thrombocytopenia is a rare disease with an annual incidence of approximately 1.6-3.9 per 100,000 and a prevalence of 4.5-20 cases per 100,000 in the world. According to published clinical trials, thrombopoietin receptor agonists (TRA) - romiplostim and eltrombopag are effective at increasing platelet counts in patients with chronic immune thrombocytopenia. Indirect comparison provided by manufacturer of eltrombopag for the National Institute for Health and Clinical Excellence (NICE) [1, 2] did not show statistically significant difference in the rate of durable or overall response between eltrombopag and romiplostim (Table 1).

OBJECTIVES
The aim of this study was to determine the comparative health care costs of therapy with TRA eltrombopag and romiplostim in adult patients with chronic immune thrombocytopenia in Russian Federation.

METHODS
An Excel-based model was developed to calculate the annual cost of eltrombopag compared with romiplostim in an average patient treated for chronic immune thrombocytopenia. The analysis was performed using the Russian health care system perspective. This perspective considers direct medical costs only. The model includes the following types of costs associated with the interventions:

- Drug acquisition cost;
- Other medical costs, including:
  - Cost of drug administration;
  - Outpatient monitoring of patients;
  - Rescue therapy cost;
  - Management of bleeding.

Costs were assessed for 2015 on the basis of registered drug list prices and official tariffs for medical services and converted to EUROs using the exchange rate 1€=74.6907₽.

RESULTS
Romiplostim is administered as a once-weekly subcutaneous injection, at a dose of 1-10 μg per kg body weight (single use of a 250 μg vial), eltrombopag is taken orally at average dose of 50 mg (from minimal of 25 mg to a maximum of 75 mg) once daily.

Costs for drug acquisition, drug administration, monitoring patients, rescue therapy and management of bleeding are presented in Table 2.

The annual total costs of romiplostim treatment are € 56,306.93 per person, the annual cost of eltrombopag is € 20,369.63. An annual cost savings per patient are € 35,937.31 (64%) in favor of eltrombopag. Largest part of the total cost (97%) in both TRA-treatment options accounted for the drug cost (Figure 1).

CONCLUSIONS
Eltrombopag being comparably beneficial with romiplostim in chronic immune thrombocytopenia is less costly for Russian healthcare system.

REFERENCES: