OBJECTIVES
Cerebrovascular diseases are the sixth cause of total DALYs lost in Turkey and the Turkish Social Security Institution (SSS) faces considerable challenge on reimbursement decisions for treatment. Alteplase is a recombinant human tissue plasminogen activator indicated for treatment of acute ischemic stroke (AIS). Clinical trials have proved efficacy in reducing 90-day disability measured by the Modified Rankin Score (mRS) if administered within 4.5, hours of onset of symptoms. The agent is used as an addition to Standard of Care (SoC). This study aimed at assessing the budget impact of Alteplase from a national perspective in Turkey.

METHODS
A budget impact model assessing the impact with and without use of Alteplase was developed. First, the number of individuals with AIS that are hospitalized and eligible for Alteplase was determined from published data and expert views. Calculations were made for 0 to 1.5 hours after onset, 1.5 to 3.0 hours after onset and 3 to 4.5 hours after onset for both scenarios. AIS hospitalization costs and the average annual costs after hospitalization were included. Cost estimates were calculated according to mRS score. Literature review and expert opinions were used in calculating the Turkish costs. Figure 1 summarizes the budget impact model.

RESULTS
The number of patients eligible for Alteplase was estimated as 12,951. Use of Alteplase resulted in cost savings for the Turkish health care system. The budget impact of Alteplase was estimated as -32,252 TRY, -282,965 TRY, -533,677 TRY, -784,390 TRY and -1,035,103 TRY for the first, second, third, fourth and fifth years respectively.

CONCLUSION
The burden of AIS on the Turkish healthcare system and unmet need is expected to increase with current ageing trends. The budget impact model revealed that given the efficacy of Alteplase, use of the product will result in net cost savings for the SSS. In addition to this, the reduced disability observed with Alteplase will also lower the need for long-term care and associated resource use, and will therefore generate an additional budget decrease.

This study was sponsored by Boehringer Ingelheim

www.polarsaglik.com

Polat M., Şentürk A., Totik E., Yıldız L., Cheynel, J.

1 Polar Health Economics and Policy Consultancy, Ankara, Turkey, 2 Boehringer Ingelheim

Table 1: Number of People Eligible for Alteplase

Table 2: Overall Utilization for the Scenario With Alteplase

Table 3: Resource Utilization of AIS Patients During Hospitalization by mRS Score

Table 4: Resource Utilization of AIS Patients Post-Hospitalization by mRS Score

Table 5: Breakdown of AIS Costs

Table 6: Budget Impact of Alteplase (TRY)