Meeting / Value in Health Info: ISPOR 14th Annual European Congress

Madrid, Spain November, 2011

Code: PDB40

Disease: Diabetes

Topic: Cost Studies (CS)

Topic Subcategory: Cost-Effectiveness Analysis (CE)

Title: ECONOMIC ANALYSIS OF DIABETES TREATMENT GOALS DEFINED BY

POLISH DIABETES ASSOCIATION. HOW MUCH DOES COST-EFFECTIVE

TREATMENT COST?

Author(s): Szmurlo D1, Schubert A2, Kostrzewska K1, Rys P1, Skrzekowska-Baran

121HTA Consulting, Krakow, Poland, 2Novo Nordisk Pharma Sp z.o.o.,

Warsaw, Poland

OBJECTIVES: Clinical guidelines for diabetes management issued by Polish Diabetes Association (PDA) describe therapeutical goals in patients with diabetes. The aim of this analysis was to determine additional costs that may be incurred for treatment along with PDA recommendations (as compared with current treatment practice), so that the growth of treatment-related expenses would remain cost-effective in Polish setting.

METHODS: Two hypothetical patients were defined: John and Peter, whose clinical characteristics correspond to those of newly diagnosed patients with diabetes mellitus type 2 (DM2) in Poland. Diabetes progression was modelled assuming that John is treated in line with current clinical practice and Peter is treated along with PDA recommendations (HbA1c, LDL, HDL, SBP are maintained within PDA-defined limits). Simulations were conducted in CORE diabetes model, which is a Markov model built on the base of published clinical trials and encompasses over a dozen of diabetes complications. The model was extensively validated and allows for reliable estimation of costs and outcomes associated with diabetes. Model inputs were adapted to Polish setting. Economic analysis was conducted in lifetime horizon, costs and outcomes were discounted (5% and 3,5%, respectively). Cost acceptability threshold in Poland is 25 511 euro per QALY gained.

RESULTS: John s QALY is 0,3 lower that QALY of Peter. Treatment of John s complications is 400 euro more expensive as compared to Peter. If willingness to pay (WTP) equals to 7500 euro per QALY, yearly costs of Peter treatment may be 250 euro higher that John s. If WTP is 15,000, Peter treatment may be 450 more expensive that John and if WTP is 25,000 the difference in treatment costs may be as high as 725 euro.

CONCLUSION: DM2 treatment along with PDA recommendations may be cost-effective provided additional costs do not exceed 725 per year.