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<b>Title:</b>	COST-EFFECTIVENESS COMPARISON OF TENSION-FREE MESH REPAIR VS. TENSION SUTURE REPAIR METHODS OF INGUINAL HERNIA IN POLAND
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**OBJECTIVES:**To compare the cost-effectiveness of tension-free mesh and tension suture methods of inguinal hernia repair in Poland, from hospital and payer perspectives.

**METHODS:** Cost effectiveness of open mesh vs open non mesh was modeled with a Cohort Markov model. Model simulation runs in yearly cycles up to 15 years. Transition probabilities were derived from systematic review and other published sources. Costs were collected from four hospitals and from the payer in Poland. Utility values were extracted from the published sources. Both costs and outcomes were discounted annually at 5%. In probabilistic sensitive analysis simulations were repeated 10000 times. CEAC curves were generated as a result of simulation for all scenarios.

**RESULTS:** Over a 5 and 15 year period open mesh provides greater benefits in terms of more QALYs and fewer recurrences at a cumulatively higher cost than open non mesh. The cost per one additional QALY is 16,730 in a 5 years time horizon and 3,236 in a 15 years time horizon from a payer perspective ( 16,485 and 3,061 respectively from a hospital perspective). Cost per one recurrence avoided is 1096 in a 5 years time horizon and 199 in a fifteen years time horizon from a payer perspective ( 1103 and 188 respectively from hospital perspective). Results from the probability sensitivity analysis are very similar to deterministic analyses. In the five year perspective open mesh is more cost effective in comparison to the open non mesh option when the value for society's willingness to pay for a QALY exceeds 10,000 ( 500 in the 15 years perspective).

**CONCLUSION:** Findings suggest open mesh hernia repair method as a very cost effective therapy from both hospitals and payer perspectives for the inguinal hernia treatment in Poland.