

Economic Evaluation and Budget Impact Analysis of a novel Monotherapy for Advanced Melanoma with Low PD-L1 Expression in Bulgaria

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Introduction

Melanoma is a major type of skin cancer, accounting for about 5% of all cases worldwide.⁽¹⁾ In Bulgaria, 465 new cases were reported in 2022 making it the 16th most common cancer, contributing to 1,4% of all cancer cases.⁽²⁾ Metastatic melanoma has limited treatment options, with 40% of melanoma patients not benefiting from existing first-line immunotherapies.⁽³⁾ There remains an unmet need for novel therapies offering more durable response and fewer toxicities than existing therapies in Bulgaria.

Methods

A cohort partitioned survival model was used to perform the cost effectiveness and cost utility analyses of the drug for a time horizon of 40 years. A budget impact analysis was also performed via Microsoft Excel to assess the cost of reimbursing the therapy over a period of 5 years.

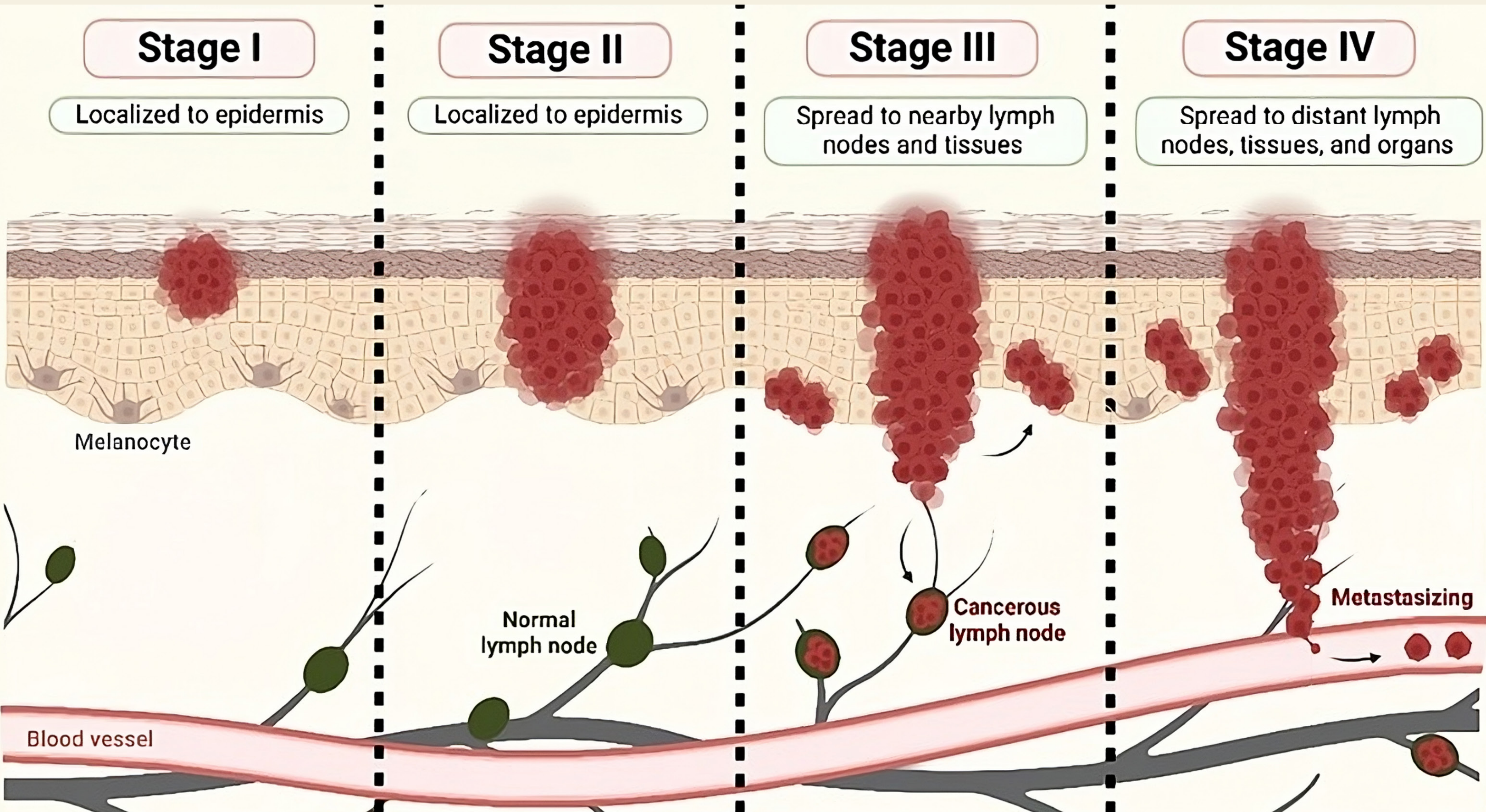


Figure 1. Melanoma progression ⁽⁴⁾

Results

In Year 1, reimbursing the novel monotherapy is projected to save BGN 526 030,77 for the treatment of 441 patients. By Year 5, however, it will incur an additional cost of BGN 1 057 258,14 for the treatment of 408 patients. Overall, the net cost across five years will be BGN 1 175 426,88.

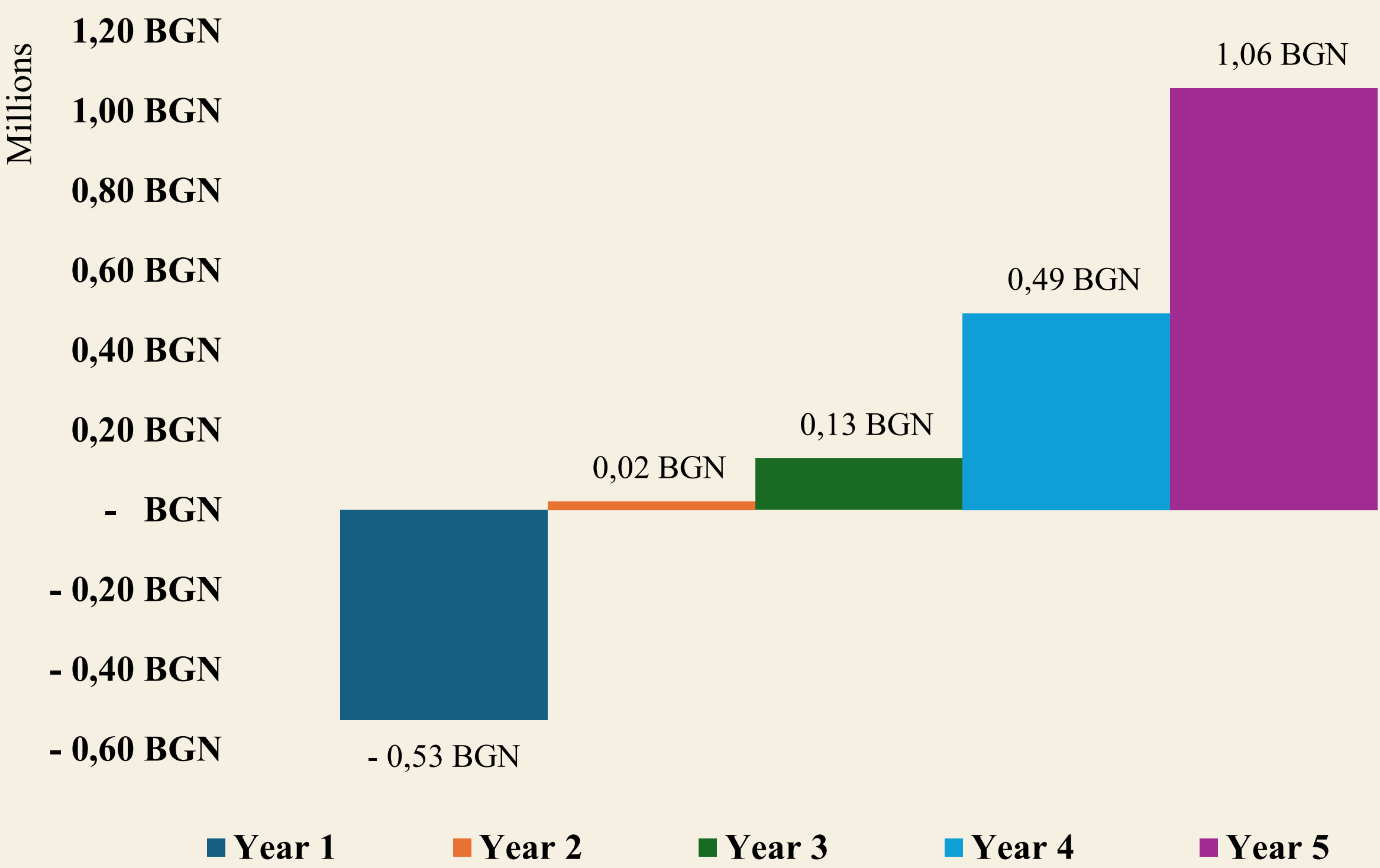


Figure 2. Budget impact of reimbursing a novel monotherapy aimed at treating advanced melanoma with low PD-L1 expression for a period of 5 years.

Despite the higher cost, the health technology provides significantly greater health benefits compared to all comparators, with gains ranging from +0,36 to +3,50 LY, of which +0,27 to +2,62 QALYs, per patient. The assessed drug proves to be cost-effective or even dominant against some BRAF/MEK therapies but not against the assessed immune-oncology therapies. Additionally, the cost of managing adverse events is lower than most comparators, reflecting the better safety profile of the novel monotherapy.

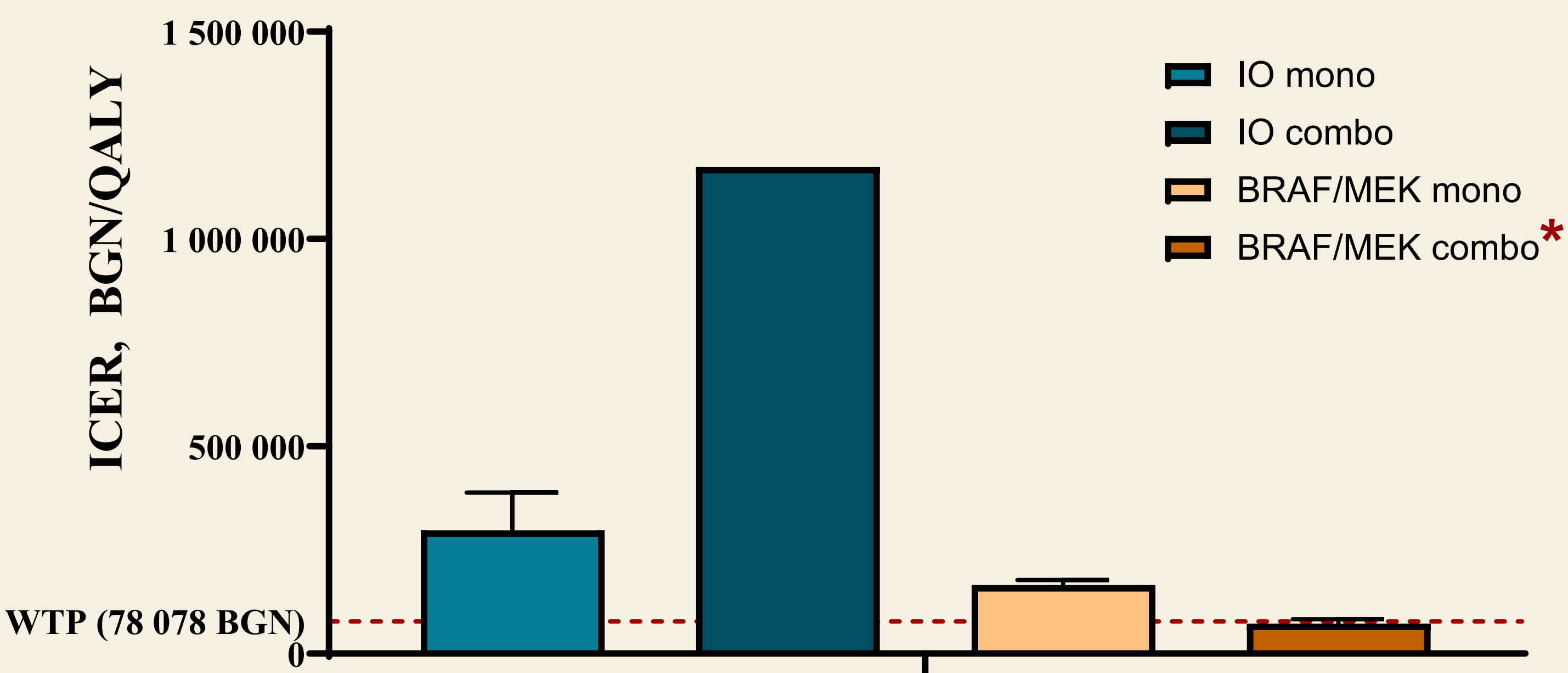


Figure 3. Cost-effectiveness of the evaluated novel monotherapy vs. comparators

*The evaluated drug saves costs compared to some BRAF/MEK combination therapies.
N.B.Data not presented in graph.

Conclusion

The conducted analyses indicate that the drug is either cost-effective or superior to certain BRAF/MEK therapies. This provides Bulgarian decision-makers with essential information to make an informed choice about its inclusion, as the implementation of this novel health technology markedly enhances both the length and quality of patients' lives compared to other treatments.

References

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