

POLICY BRIEF

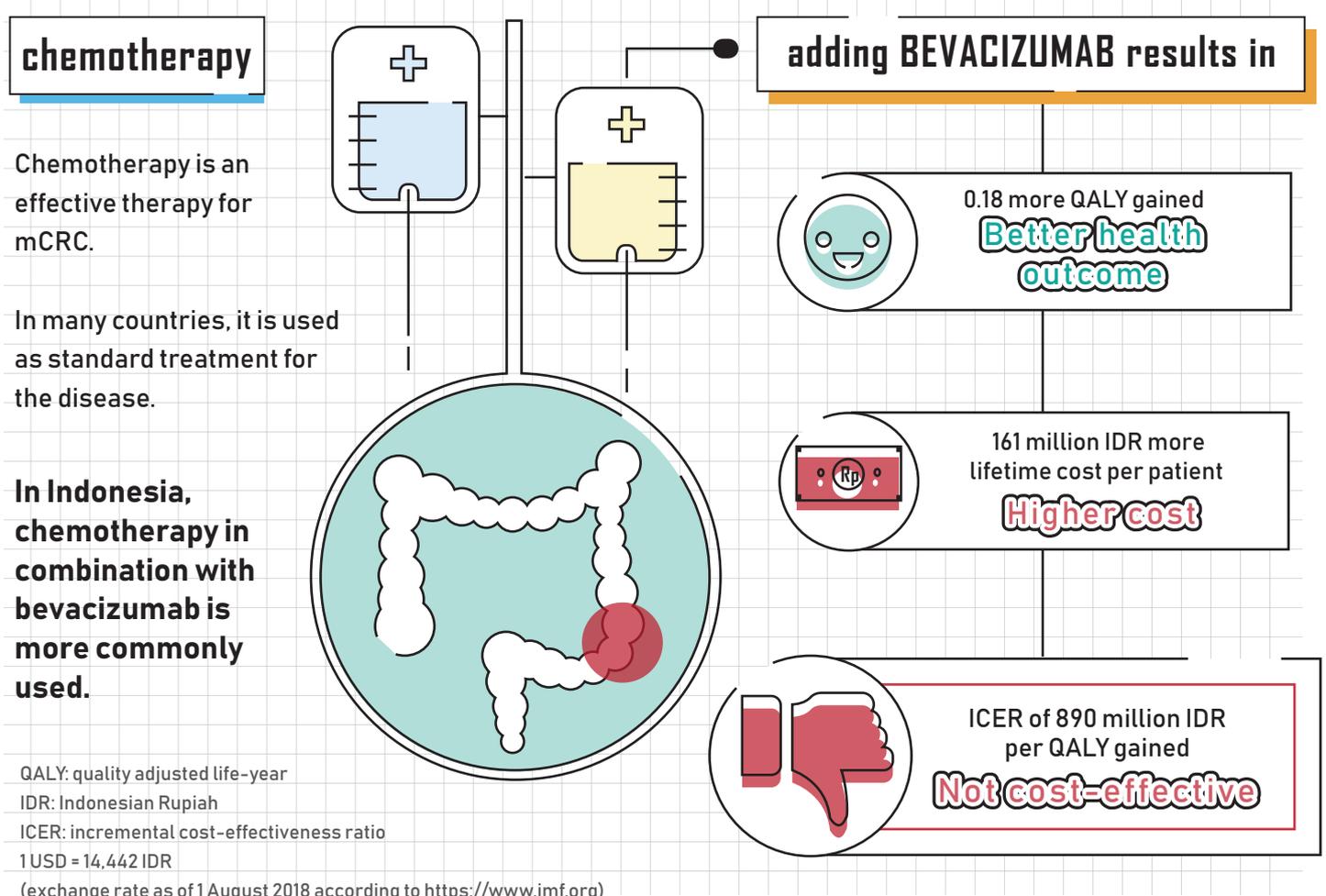
Should high-cost bevacizumab be used for metastatic-colorectal cancer (mCRC) treatment in JKN in Indonesia?

Colorectal cancer is the third most common cancer in Indonesia with approximately 28,000 patients diagnosed each year. Without population-based screening, patients are often treated when they reach the advanced stage.

Bevacizumab, a newly available high-cost treatment for metastatic colorectal cancer (mCRC), is part of the National Drug Formulary and, thus, included in benefit package under the JKN, the universal health coverage (UHC) in Indonesia. Although it shows better effectiveness, it also has a significantly higher cost compared to chemotherapy alone.

This economic evaluation was conducted to assess the value for money and budget impact of using bevacizumab compared to chemotherapy alone. The findings reveal that adding bevacizumab to the existing chemotherapy should be reconsidered as it is not good value for money in Indonesian context. Taking out bevacizumab would imply a marginal loss to patients but would save significant budget to BPJS, the healthcare payer, for spending on other priority programs, such as early detection of colorectal cancer.

Adding bevacizumab to chemotherapy is not cost-effective



Background: Why do we need this study?

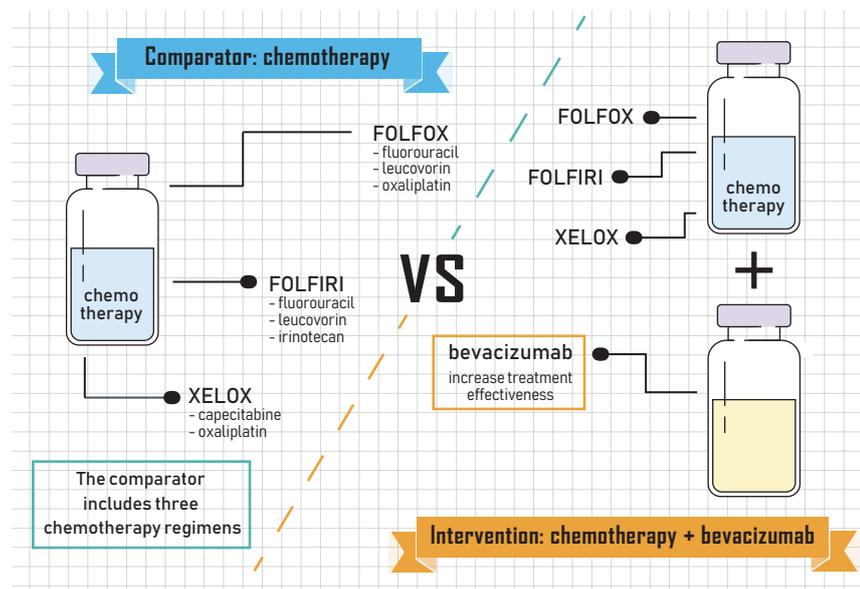
In Indonesia, bevacizumab was approved by Indonesian FDA “Badan Pengawas Obat dan Makanan” (BPOM) in 2006 for indication of mCRC when used in combination with: fluorouracil, leucovorin and oxaliplatin (FOLFOX); fluorouracil, leucovorin and irinotecan (FOLFIRI); or capecitabine and oxaliplatin (XELOX). Bevacizumab has been included in the national drug list (Fornas) in 2015. Drug utilization data from BPJS showed that bevacizumab is the ninth highest paid drug in 2015.

Bevacizumab offers better effectiveness; however, it is also at much higher price compared to chemotherapy. Therefore, economic evaluation of bevacizumab is required to justify the current spending.

Study details: How is this economic evaluation conducted?

A model-based economic evaluation was conducted to assess costs and outcomes of adding bevacizumab to the existing chemotherapy compared to chemotherapy alone.

The primary data collection, particularly for direct medical and direct non-medical costs, quality of life, and number of patients treated who progress to death, was done in three public hospitals in Bali, Yogyakarta, and Jakarta. Results from a systematic review of randomised control trials (RCTs) assessing the benefits of adding bevacizumab compared to chemotherapy alone were used as input in the model. The study offers results from two analytical perspectives i.e. healthcare provider perspective and societal perspective.

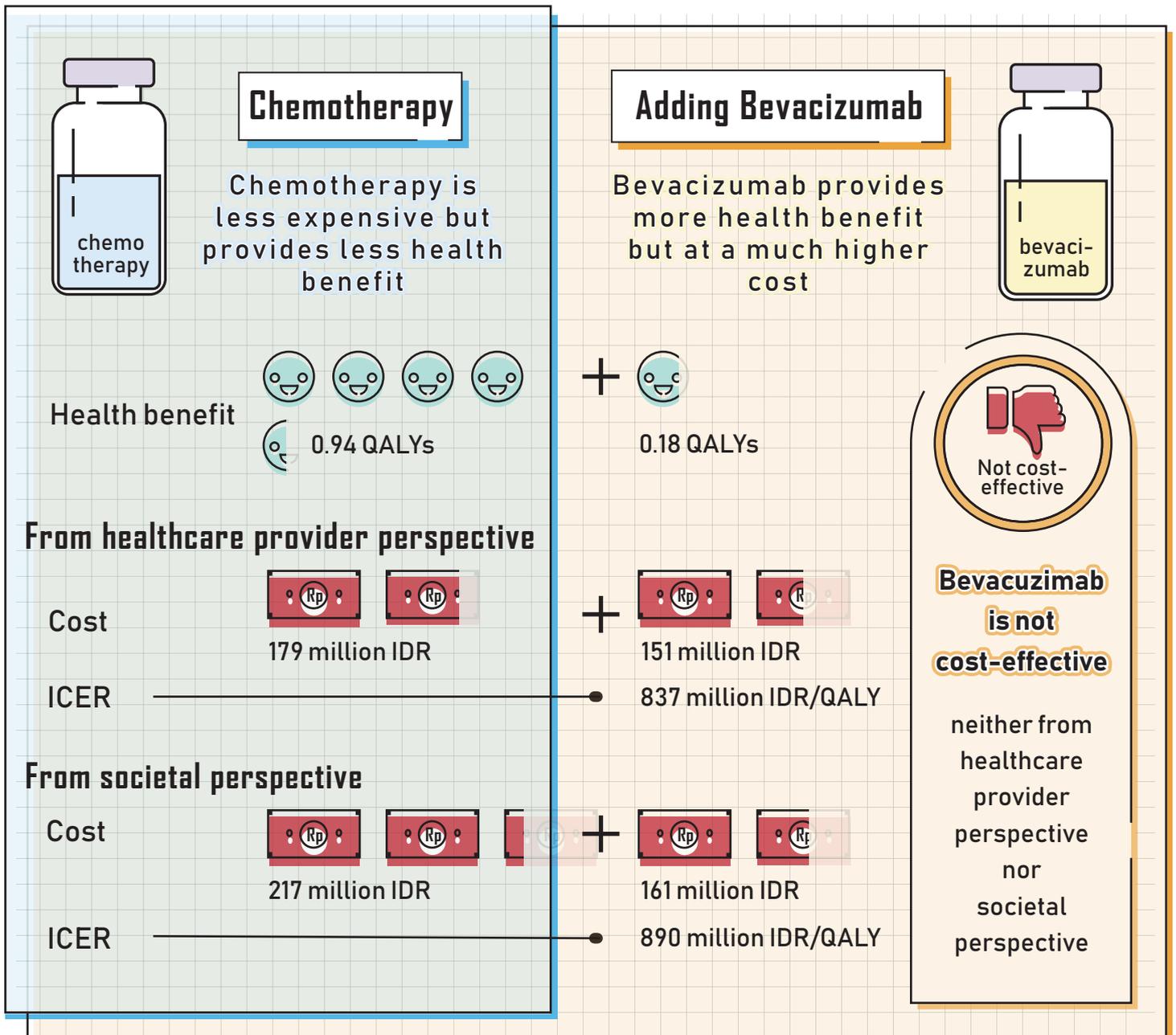


Key findings

A mCRC patient treated with bevacizumab and chemotherapy lives one month longer than a patient treated with chemotherapy alone. Considering progress free survival, a patient treated with bevacizumab is expected to have two more months in the stable stage when compared to a patient treated without bevacizumab.

Adding bevacizumab to mCRC implies an increase of 151 million IDR per patient in medical cost. Using societal perspective, the hospital and household together pay 161 million IDR more on bevacizumab in combination with chemotherapy than chemotherapy alone.

Given the cost-effectiveness threshold of 52 million IDR per quality adjusted life-year (QALY) gained, adding bevacizumab to chemotherapy in mCRC treatment does not represent good value for money in Indonesia. It incurs 837 million IDR per QALY gained from healthcare provider perspective and 890 million IDR per QALY gained from societal perspective.



Discussions

This study illustrates that adding bevacizumab to current chemotherapy is not good value for money in Indonesia. Bevacizumab offers minicule benefit, e.g. one month of longer life, at a very high-cost for the BPJS. This would make the JKN system unsustainable in the long run.

In comparison to the treatment options available for mCRC under the UHC in other countries, patients enrolled under the JKN enjoy a wider range of options. Under the Thai UHC, only FOLFOX is listed for mCRC treatment. In England and Wales, the National Institute for Health and Care Excellence (NICE) does not recommend the use of bevacizumab for mCRC since it is of poor value for money*.

*<https://www.nice.org.uk/guidance/ta118/chapter/1-Guidance>

Policy Recommendations

- The addition of bevacizumab to the current standard of care for mCRC patients should be reconsidered as it is not a cost-effective treatment in the context of Indonesia.
- The savings from removing bevacizumab from the benefits package can be diverted towards other public health programs, such as cancer screening for early detection of colorectal cancer. This would not only reap more health for the population and economic benefits for the UHC provider but also ensures efficient use of public resources and fosters sustainability of the UHC scheme.

Acknowledgement

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For more information on this study, please go to www.globalhitap.net/projects/idsi-indonesia

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