Budget Impact Analysis (BIA) of medical activity on fractional flow reserve measurement (FFR) for functional assessment of epicardial stenoses in patients with stable coronary heart disease

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OBJECTIVES:

FFR is the ratio of the amount of blood actually entering the myocardium relative to the maximum amount of blood that can enter it if there are no blood supply obstructions. The study's objective was to evaluate BI of the implementation of the medical activity of measuring FFR, adopted as the gold standard for functional assessment of epicardial stenoses. The main FFR indication is an accurate functional assessment of a borderline coronary stenosis in patients with stable coronary heart disease.

METHODS:

An Excel BI model was built to evaluate the FFR economic impact for the treatment of coronary artery disease in Bulgaria. The model was developed and populated with epidemiologic local data and compared the total budgetary costs of a scenario with FFR versus a scenario without FFR (with coronary angiography). Costs were calculated according to the prices of the medicinal procedures as of April 2022. A sensitivity analysis with a tornado diagram is applied.

RESULTS:

The BI analysis estimated that FFR guided strategy for percutaneous coronary intervention (PCI) is a cost-saving alternative to the angiographically guided strategy. The savings for the NHIF in the first year of the reimbursement of FFR are -1,115,824.22 BGN and reach -1,594,034.60 in the third year. The total cost saved is BGN -4,038,221.00.

CONCLUSIONS:

With the increase in the proportion of patients in whom the functional assessment of the degree of stenosis was performed by FFR, the savings for the NHIF will increase.

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