

Cost-minimization analysis of the treatment of patients with metastatic colorectal cancer in Greece.

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Source

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Abstract

BACKGROUND:

In 2008, colorectal cancer was the fourth most common cause of cancer-related death worldwide. Monotherapy with monoclonal antibodies directed against the epidermal growth factor receptor, such as cetuximab and panitumumab, has recently been introduced in the management of metastatic colorectal cancer (mCRC) patients.

OBJECTIVE:

The aim of this study was to conduct a cost-minimization analysis comparing panitumumab with cetuximab in the treatment of patients with epidermal growth factor receptor-expressing mCRC with nonmutated (wild-type) Kirsten rat sarcoma viral oncogene homolog in Greece. The perspective of analysis was that of payers (Social Security Sickness Fund) and the country's National Health Service (NHS).

METHODS:

The model was designed to contain probabilistic parameters to account for uncertainty and variation in these parameters. All resources consumed in local hospitals in the management of patients in each case were evaluated. Two analyses were performed: 1 evaluating cost per milligram and another evaluating cost per vial.

RESULTS:

From a payer perspective, the mean 20-week total cost per patient for panitumumab and cetuximab was: (1) per-milligram analysis: €16,349 and €18,242, respectively; and (2) per-vial analysis: €18,808 and €19,701. From the NHS perspective, the mean total costs per patient were slightly higher; however, the use of panitumumab was associated with a 17.7% and 12.4% cost reduction in per-milligram and per-vial analysis, respectively. The results of probabilistic models confirmed those of the deterministic analyses.

CONCLUSION:

In the Greek NHS and Social Security Sickness Fund setting, panitumumab monotherapy potentially constitutes a cost-saving option (versus cetuximab monotherapy) in the management of patients with mCRC and no mutation of Kirsten rat sarcoma viral oncogene homolog.