

twice that of ZOL in the US. NNT represents the number of patients that need to be treated with a new therapy in order to avoid one additional event, and is a useful approach to assess the relevance of therapies in the real life clinical setting. In this statistical analysis, the NNT approach was used to assess the incremental benefit of Dmab over ZOL for the prevention of SREs in patients with other solid tumours and MM.

Methods: The pivotal phase III randomized data for Dmab vs. ZOL was reviewed (US PI, 2010). As an alternative to ZOL, the NNT with Dmab to avoid any SRE at 24 months was determined. NNT by type of SRE was also estimated. These consisted of pathologic fractures, radiation to bone, spinal cord compressions and surgery to bone. The calculated NNT represents the incremental benefit provided by Dmab above and beyond Zometa therapy.

Results: To avoid a single SRE at 24 months of continuous therapy with Dmab, approximately 21 patients would need to be treated. To avoid a single fracture, radiation to bone and surgery to bone, 56, 36 and 167 patients need to be treated with Dmab over a 24 month period. In addition, Dmab was unable to offer any incremental benefit over ZOL in terms of avoiding spinal cord compressions.

Conclusion: The NNT approach is a simple and effective method to express the findings in a clinically meaningful way. In this analysis, the incremental benefit of Dmab would only be realized when a minimum of 21 patients are treated for 24 months in order to prevent 1 additional SRE. For those SREs (i.e. surgery to bone and spinal cord compression) that are typically considered the most clinically and economically severe events, 167 patients would need continuous treatment with Dmab to avoid one surgery to bone event, while Dmab offered no incremental benefit in terms of avoiding spinal cord compressions. These marginal incremental benefits need to be considered alongside the high cost of Dmab.

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POSTER

First-line Bevacizumab Plus Taxane-based Chemotherapy for Metastatic Breast Cancer (mBC): Cost Minimisation Analysis

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Background: Bazan *et al.* assessed first-line bevacizumab plus taxane-based chemotherapy for metastatic breast cancer (mBC) and showed no difference of Progression Free Survival (PFS) between two treatments (bevacizumab plus docetaxel – BD versus bevacizumab plus paclitaxel – BP), with median values of 10 months [8–13] (HR = 1.32 [0.81–2.17], $p=0.26$) (Abstract submitted ESMO 2011 by Bazan *et al.*). In the context of rational decision-making in health care, the purpose of this study is to carry out a cost minimisation analysis including a comparison of the costs to the French Public Health Insurance arising from first-line treatment by BD versus BP for patients with mBC.

Material and Method: Of 86 patients included in the Bazan *et al.* study and for which effectiveness data were analyzed, 7 patients are always treated and are thus excluded from economic analysis. It took into account costs related to drug acquisition, hospital care for chemotherapy administration and for toxicity and transport. Hospital resources cost was based on the French public Diagnosis-Related Group database. Drug acquisition costs (bevacizumab, docetaxel, paclitaxel) and transport were respectively drawn from French official sources (reference 2011). As our study took place over a limited period of time, no discounting was performed. Costs are expressed in euros (€). To gain insight into the uncertainty around the total cost difference, standard non-parametric bootstrap stimulations were conducted (10,000 replications).

Results: The number of chemotherapy administration was significantly higher for patients treated by BP compared patients treated by BD. No difference was observed in terms of hospitalization for toxicity. First-line BP chemotherapy for mBC was associated with a mean total cost higher than first-line BD chemotherapy, respectively $49,299 \pm 33,026$ versus $54,710 \pm 31,423$, ie. an differential cost of 5,411€. The chemotherapy cost represents respectively 84% and 80% of the total cost. Sensitivity analysis confirmed robustness of results, with a saving cost of 5,359€ per patient treated with BD ($p < 10^{-4}$).

Conclusion: In lack of difference of PFS between two treatments (BD versus BP), our cost minimisation analysis tends to show a significant cost decrease associated with first-line treatment by BP for patients with mBC, candidate for one of these treatments.

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POSTER

Health Resource Utilization and Costs Associated With Gastric Cancer – Results From a US Claims Database

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Background: While gastric cancer (GC) is a worldwide problem, there is little information regarding its economic burden from a payer perspective. The objectives of this study were to estimate real-world costs associated with GC, specifically metastatic disease.

Materials and Methods: Retrospective analysis of direct costs and healthcare services use in GC patients and controls using IMS LifeLink™ Health Plan Claims (US) Database. Cases were ≥ 18 years of age and newly-diagnosed with GC in 2007–2009 (first GC diagnosis as index date). Cases were excluded if they had evidence of cancer in the 360 days prior to index or evidence of cancer other than gastric 4 weeks after index. Controls (individuals without GC) were matched 1:1 with cases (98.4%) on age, gender, region, health plan and payer type, and length of follow-up. Costs are reported as monthly means. Patients were classified as metastatic if they had a claim for a secondary malignant neoplasm (ICD-9-CM 197.x, 198.x) in post-index period.

Results: A total of 303 GC cases were identified and matched to a control. Mean age of the sample was 58 and 55% were male. Median follow-up was 364 days. Total mean monthly costs were significantly greater for cases (\$10,653 vs. \$571) as were hospitalizations, emergency room visits, physician office visits, laboratory and radiology procedures, and pharmacy services ($p < 0.0001$). The most pronounced difference was for inpatient services with 75% of cases hospitalized during follow-up vs. 9% of controls ($p < 0.0001$), resulting in a 35x greater cost for inpatient care (\$6,511 vs. \$182). When stratifying our overall GC sample, metastatic patients (N = 90, 30% of GC sample) incurred disproportionately higher costs on all utilization variables. Cost differences between metastatic and early stage patients were found for outpatient pharmacy services (\$1727 vs. \$293), inpatient services (\$10,282 vs. \$4918), and ancillary services (\$2560 vs. \$882). Overall, the mean monthly cost to treat a metastatic patient was more than 2x greater than the cost to treat an early stage patient (\$17,289 vs. \$7849).

Conclusions: The mean total monthly healthcare cost for newly diagnosed GC patients was 18 times higher than matched controls without GC. The largest difference was in inpatient costs, followed by drug and radiology costs. Interestingly, metastatic disease costs were more than double those for early stage GC patients, largely due to pharmacy, ancillary, and inpatient services. On a monthly per-patient basis, GC is associated with significant costs especially in metastatic patients.

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POSTER

Incidence of Costly Cancer Treatment in Two Health Care Services

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Background: The equitable access to medical treatment accordingly to individual needs is an important issue to discuss taking into account that resources are limited.

In this study we describe the incidence of costly cancer drugs with antitumour effect in a Social Healthcare Service with national coverage and 350000 beneficiaries and in a Private Medical Insurance Company with 500000 affiliates, from January 2010 to December 2010.

Material and Methods: Retrospective study. Source: clinical history and files from patients on anticancer treatment from January 2010 to December 2010.

Results: In the Social Healthcare Service, 7.22% of the total cancer patients (1281) received costly cancer treatment. The most used therapies were: Rituximab (31.5%), Bevacizumab (16.85%) Trastuzumab (16.85%). The most frequent cancers that received costly cancer drugs were haematological (32.5%), breast (22.5%), colorectal (13.5) and lung (11.2%).

In the private Medical Insurance sector, with over 500.000 affiliates, 0.86% received pharmacological treatment for solid tumours.

101176 pharmacological units were dispensed. From this, the Top 3 High Cost treatment dispensed by units were: Trastuzumab with 5.26% of units and 31.1% of the total cost; Bevacizumab with 4.3% of units and 12.8%