PCN5

FIRST-LINE THERAPY FOR ADVANCED BREAST CANCER — COST-EFFECTIVENESS OF ANASTROZOLE VERSUS TAMOXIFEN

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OBJECTIVE: New generation nonsteroidal aromatase inhibitors are potent, selective and well-tolerated anti-estrogens that improve survival of advanced breast cancer patients when used as second-line agents. Anastrozole, an aromatase inhibitor, was recently investigated as first-line therapy. Its cost, however, is 10 times higher than the cost of tamoxifen. Consequently the cost-effectiveness of anastrozole is to be investigated.
METHODS: We first addressed the cost per month-without-progression with a three-state Markov tree (response; progression; withdrawal) with monthly transitions. The probability of progression was obtained by pooling the data from estrogen-positive women enrolled into the three randomized clinical trials. The monthly rate of withdrawal was assumed to be time-independent and the cost of withdrawal was equivalent to the approximate charge for a thromboembolic event. According to the Italian market, the monthly cost of tamoxifen was $18 and that of anastrozole, $190. No other difference in costs was assumed between the two treatments.
RESULTS: Since anastrozole allowed for a gain of 1.77 progression-free months, the resulting marginal cost-effectiveness of anastrozole versus tamoxifen was $1395/month-without-progression. We then calculated the lag time from progression to death and considered the average monthly cost of those patients who progressed while on first-line therapy to be $1000. The cost-effectiveness of anastrozole was thus $19,428/life year saved, and, after adjustment for quality of life, $33,476/QALY. The results were not sensitive to an increase in drug cost of 30%, while they were sensitive to a variation in the relative risk of progression.
CONCLUSION: Anastrozole is a cost-effective second line therapy for post-menopausal women with advanced breast cancer and positive for estrogen receptors. It is also a potentially cost-effective first-line hormonal therapy. Both clinical and economic data are needed from cross-over trials to confirm the cost-effectiveness in this indication.

PCN6

MODELLING THE COST-EFFECTIVENESS OF DOCETAXEL IN THE SECOND LINE TREATMENT OF NON-SMALL-CELL LUNG CANCER (NSCLC)

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OBJECTIVE: Until recently, best supportive care (BSC) has been the only option for NSCLC patients who do not respond to first line platinum based chemotherapy. Docetaxel was recently approved by NICE for use in patients with locally advanced or metastatic lung cancer. This study modeled the incremental cost-effectiveness of docetaxel and BSC versus BSC alone, in terms of direct health-care costs per life year gained.
METHOD: The model used the results of a published trial, which directly compared docetaxel plus BSC with BSC alone. The difference in mean survival between the docetaxel group and the BSC group was calculated as 3.82 months. Costs principally comprised drug acquisition and administration. In the reported trial result there were no costs for toxicity treatment or any cost offsets, because of incomplete trial data on non-chemotherapy treatments. However, a worst case was modeled, including possible toxicity treatment costs, and a best case, including possible cost offsets. Sensitivity analysis also varied months of life gained by taking the weighted average of the worst two survival results (worst case) and the best two survival results (best case) from four phase II trials. Patient mean body mass and the number of vials used to meet dose requirements were also varied.
RESULTS: The model estimated a cost per life year gained of £13,618. (Best case £7,086; worst case £28,905). These cost-effectiveness ratios compare favourably to accepted standards in the UK. Whilst not captured in the model, the published study showed no significant difference between the docetaxel group and the BSC group in terms of quality of life, but all QoL parameters favoured the docetaxel arm.
CONCLUSION: Docetaxel is a cost-effective treatment for pre-treated NSCLC in terms of survival, with a non-significant trend to improved quality of life compared to BSC.

PCN7

COST OF THE POST-PBPC REINFUSION PERIOD IN HIGH DOSE TREATMENT OF NON-HODGKIN'S FOLLICULAR LYMPHOMA (N-HFL) WITH AND WITHOUT FILGRASTIM

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OBJECTIVES: to retrospectively assess the cost of treatment following reinfusion of PBPC after high-dose chemotherapy in n-HFL patients until day 90 post-reinfusion in an open-label, randomised phase III trial comparing the treatment with and without filgrastim. The study was a multi-centre trial conducted in France between 1995–1999.
METHODS: Of fifty-one patients enrolled, 27 received filgrastim (FI) and 24 were in the control arm (C). Demographic and disease-specific information was collected through the CRF. Costs measured were hospital duration (normal ward and ICU), drugs, transfusions, diagnostics and lab tests. Drug prices were retrieved from the VIDAL 2000 database and on-line BIAM database. Costs of hospitalization and technical procedures were obtained from