

for almost 20% of all cancers in France in 1990, and more than a third of women still die from metastatic breast cancer. Although metastatic breast cancer is a major public health issue and is associated with high management costs, no pharmacoeconomic assessment has been carried out in patients with this disease.

Methods: A Markov process model was designed to assess the cost-utility of a new hemisynthetic Vinca-Alcaloid (Vinorelbine) and two taxoids (Docetaxel and Paclitaxel) for second-line therapy of metastatic breast cancer. The model took into account 53 disease states associated to responses, toxicities and disease complications. Phase II clinical trials were used to calculating transitional probabilities by the actuarial method and the density function approach.

The content of health state descriptions was based on the Health Utility Index (Mark II and Mark III, Mc Master University). Three dimensions: vision, hearing, speech, were considered as optimal and omitted. Five specific cancer complaints were added. The scenarios were validated for comprehension by 5 oncologists and 3 nurses. Health state preferences were estimated by using the standard gamble and the feeling thermometer techniques in a survey involving 20 oncology nurses as a proxy for patients. To sum up the results, a method similar to the Q-Twist approach has been used combining progression and adverse events into a therapeutic risk-benefit index. The health-related quality-of-life coefficients were used as quality adjustment factors to calculate quality-adjusted progression-free survival associated with the 3 regimens.

Cost evaluation was based on the combined perspectives of the Health Care System and of the patient. Non medical direct and indirect costs were excluded from the calculation. Consumption per episode of care was estimated by retrospective analysis of 153 medical files from 5 French hospitals. To identify hospital resource utilization, the French DRG's classification was used. Real costs per DRG were obtained from the Ministry of Health cost survey based on accounting data collected in 1993 from 22 hospitals. Ambulatory costs were estimated from the patients' prescriptions made at hospital discharge. Valuation of ambulatory resource utilization was based on the French relative value scale for medical services and retail prices for drugs. The model kept track of the treatment cost, of the adverse event-related cost, and of the savings due to postponed recurrences.

Cost and quality of life assessments under treatment from the beginning of the chemotherapy until death have been carried out following this methodology. Incremental cost utility ratios were calculated.

Results: For a typical base line, Vinorelbine and Paclitaxel treatments were strongly dominated by Docetaxel treatment. The latter reduced the time spent in progression, decreased the number of disease complications, and thereby, provided better quality of life. Even with the highest cost linked to treatment, as Docetaxel allowed to avoid numerous disease complications, its total cost was the smallest. Broad sensitivity analysis confirmed the robustness of these results.

Discussion: The model approach allows to synthesize results of different type of studies clinical trials, current practice surveys, resource utilization reviews and quality of life assessment. It enables to anticipate the whole consequences of the disease.

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OP25. A Systematic Review of Health Benefit Valuation in Economic Evaluations in Cancer

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Background: As the number of cancer treatments increases, their consequences for patients relate not simply to hard clinical outcomes such as survival. Interventions invariably differ in terms of their impact, often via side effects, on various dimensions of health-related quality of life (HRQL) (e.g. pain, physical function). They also differ in terms of their process characteristics (e.g. the need to visit hospital frequently versus largely community-based care). Increasingly, the comparison of cancer treatments is characterised by one treatment having a lower

incidence of one sort of adverse event and a higher incidence of another. Trade-offs may also exist between the HRQL implications of adverse events, the process characteristics of treatments and hard clinical outcomes such as survival. In order for decision makers to judge the overall net benefits of interventions, valuation studies offer a means of eliciting - from patients or other groups - the weights attached to the various outcomes and process characteristics of treatments. Valuation studies can facilitate the estimation of a unidimensional measure of benefit which can then be used in resource allocation. Various approaches to the valuation of health exist, some of which have been used in the evaluation of cancer treatments. This paper presents the results of a systematic review of the empirical literature related to health valuation studies in the area of cancer care.

Methods: Relatively few systematic reviews of economic evaluations have been undertaken and problems exist with identifying relevant articles from bibliographic databases due to indexing which lacks specificity. A range of databases have been interrogated including Medline, the OHE HEED database and the NHS CRD NEED database. The aim of the search strategy has been to identify economic evaluations which have sought to combine the multidimensional outcomes and process characteristics of treatment onto a single scale using valuation techniques which attempt to reflect individuals' preferences. Analysis of these papers is currently underway and results will be presented.

Discussion: The review will help to illuminate the rationale for valuation studies in economic evaluation and the strengths and weaknesses of various methods such as QALYs, Q-TWIST, healthy-year equivalents, willingness to pay and conjoint analysis.

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OP26. Assessing the relative costs of standard open surgery and laparoscopic surgery in colorectal cancer in a randomised controlled trial

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Colorectal cancer is the second most common malignancy in the western world. Adequate surgical resection is the only curative treatment with overall survival rates of just under 50% at 5 years. It is well recognised that surgical technique is critical both in respect of cure and local recurrence. Conventional open surgery is regarded as the current "gold standard" for colorectal malignancy. However, following the recent wide-scale introduction of the laparoscopic procedure for abdominal procedures such as cholecystectomy and appendectomy, interest is now turning to the place of laparoscopic surgery in colorectal cancer. Enthusiasts around the world are beginning to explore the role of such technology with the hope that the perceived benefits of laparoscopic surgery in other arenas, namely less pain, earlier mobilisation, shorter hospital stay, earlier return to work and improved long-term cosmetic results, will also apply to laparoscopic colorectal surgery. Indeed, the UK Medical Research Council (MRC) is currently funding a multi-centre randomised controlled clinical trial (the MRC CLASICC Trial) to evaluate the role of laparoscopic surgery in the management of patients with colorectal cancer.

The primary end-points of this trial are pathological resection margins, 30-day operative mortality, and local recurrence rates, disease-free and overall survival at 3 years. Cost-effectiveness and quality of life are defined as secondary end-points; however they play an important role in the overall comparison of laparoscopic surgery with conventional open surgery. Several economic evaluations will be made including:

- the relative costs of laparoscopy and open procedures with respect to equipment cost, theatre time, hospital stay;
- the use of health resources, such as GP visits, use of social services, district nurse visits;
- quality-adjusted life years obtained using Q-TWIST analysis.