PCN10

THE COST-EFFECTIVENESS OF POST-OPERATIVE RADIOTHERAPY AFTER BREAST CONSERVATION SURGERY IN STAGEI-II BREAST CANCER IN SWEDEN

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OBJECTIVES: To analyse the cost-effectiveness of adding adjuvant postoperative radiotherapy (RT) to medical therapy after breast conservation surgery in Stages I–II breast cancer in Sweden. **METHODS:** A stochastic decision analytic model follows patients from primary breast conservation therapy during adjuvant therapy and includes five possible events of local or regional events, metastases and death. Clinical data were taken from a randomised clinical trial (SweBCG 91-RT) including 1187 women aged 75 or younger who had received breast conservation surgery and axillary dissection in Sweden between 1991 and 1997 and with a median follow-up of five years. Data on health care costs were taken from a breast cancer register, a health care database including all hospital and primary care contacts in the West Health care Region. Costs for pharmaceuticals, hospice, homecare and values of utilities were taken from the literature. **RESULTS:** Model results show a ten years risk of local and regional event of 24.1 and 8.4 percent for the no RT and RT groups, respectively. There was a significant increase in average Quality Adjusted Life Years (QALYs) of 0.13 (from 7.60 to 7.73) but no significant difference in average life expectancy. Treatment costs increased from SEK97,467 (€10,800) to SEK101,453 (€11,300) per patient. RT shows an incremental cost per QALY of SEK 32,000 (€3600). Model applications for 15 and 20 years results in cost savings due to a larger amount of prevented relapses. Considering RT as an add-on to novel adjuvant medical treatments regimens will however, reduce the incremental benefit of radiotherapy and the subsequent cost offsets. **CONCLUSIONS:** Postoperative RT is cost-effective for pre- and postmenopausal breast cancer women with Stage I–II undergoing breast conservation therapy in Sweden only as an adjunction to no medical adjuvant treatment. As an adjunct to novel adjuvant medical therapies, RT is cost-effective in high-risk groups.

PCN11

ECONOMIC EVALUATION OF BORTEZOMIB IN THE TREATMENT OF RELAPSED AND REFRACTORY MULTIPLE MYELOMA PATIENTS IN CANADA

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OBJECTIVES: In 2005, bortezomib received regulatory approval in Canada for the treatment of multiple myeloma (MM) patients who have relapsed following front-line therapy and are refractory to their most recent therapy. Prior to this approval, treatment options for this patient group were very limited and included best supportive care (BSC). The objective was to conduct an economic analysis of bortezomib versus BSC in relapsed and refractory MM patients. **METHODS:** The clinical evidence (survival and QOL) for the analysis was taken from the SUMMIT trial (NEJM 2003;384:2609–2617), a Phase II trial of bortezomib in 202 relapsed and refractory MM patients. These patients were heavily pre-treated with a median of six prior lines of therapy. In order to properly represent such a refractory group of patients, the Progressive Disease subgroup of patients in SUMMIT were used to estimate how a BSC group would perform. Utility score was indirectly obtained from mapping patient QOL (EORTC-QLQC30, MY24, FACIT-Fatigue, FACT/GOG-Ntx) onto dimensions in ED-5D. Resource use from SUMMIT was used to estimate costs from the Ontario Ministry of Health perspective. **RESULTS:** Bortezomib produced a survival gain of 9.95 months (range 7.75 to 12.09 months), a QALY gain of 0.53 QALY, and an incremental cost of CAN$37,662 per patient. The incremental cost-effectiveness ratio (ICER) was CAN$45,399 (range $37,380 to $58,288) per LY and incremental cost-utility ratio (ICUR) was CAN$70,852 (range $58,189 to $89,791) per QALY. Sensitivity analyses did not produce wide changes in the ICER or ICUR. **CONCLUSIONS:** Bortezomib is a cost-effective option for this patient population that has limited available therapies.

PCN12

IMPACT OF ADJUVANT CHEMOTHERAPY WITH DOCETAXEL FOR EARLY BREAST CANCER: COST-EFFECTIVENESS ANALYSIS (CEA) OF A DOCETAXEL, DOXORUBICIN AND CYCLOPHOSPHAMIDE REGIMEN (TAC) VERSUS 5-FLUOROURACIL, DOXORUBICIN AND CYCLOPHOSPHAMIDE (FAC) IN FRANCE

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OBJECTIVES: A drug protocol that incorporated docetaxel with the conventional anticancer agents doxorubicin and cyclophosphamide (TAC) has shown better efficacy than 5-FU with the same agents (FAC) in terms of disease-free survival and overall survival, in a long term (5 year) randomised controlled trial in women with early breast cancer (BCIRG001 trial). Considering the cost difference between the two regimens and the potentially large number of patients affected by this new indication, an economic assessment was deemed necessary. **METHODS:** In order to assess long term costs and effectiveness of both regimens beyond the time scope of the trial, we developed a lifetime Markov model comparing TAC and FAC. Four health states were defined: alive without relapse, alive with loco-regional relapse, alive with distant relapse and dead. Transitions occurred every 6 months accordingly to time dependent transition probabilities derived from the clinical trial. Model consistency was checked against the 5-year trial results. We took into account costs of initial chemotherapy, of severe (grade 3/4) adverse events (febrile neutropenia, stomatitis, diarrhoea, infection), of secondary prophylaxis with growth factors and of follow-up after treatment. In case of relapse, a cost was assigned to patients including pre-treatment check-up, chemotherapy, supportive care and follow-up. The perspective was that of the French public health insurance. **RESULTS:** Patients receiving TAC had a longer life expectancy than those treated with FAC (28.61 versus 26.33 years). Overall lifetime average costs were €20,837 and €16,143 respectively for TAC and FAC. The incremental