vs. NT in 79%, 56%, and 36% of model runs, respectively. CONCLUSIONS: For the management of BCBM patients, ZA is the preferred bisphosphonate as it is more effective and less expensive than other IV agents or even no therapy.

PCN32

COST-EFFECTIVENESS ANALYSIS OF LETROZOLE VERSUS TAMOXIFEN AS INITIAL ADJUVANT THERAPY IN HORMONE-RECEPTOR POSITIVE POSTMENOPAUSAL WOMEN WITH EARLY BREAST CANCER IN THE UK

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OBJECTIVES: The primary core analysis of the BIG 1–98 study showed that in postmenopausal women with hormone receptor positive (HR+) early breast cancer, the aromatase inhibitor (AI) letrozole (LET) significantly reduced the risk of recurrence by 19% overall (95% CI 7–30%) and the risk of relapse in distant sites by 27% overall (CI 12–40%) compared with tamoxifen (TAM). Letrozole demonstrated non-significant improvements in overall survival and contralateral breast cancer. LET patients had reduced risks of endometrial cancer and venous thromboembolism (VTE), but increased risks of mild/moderate hypercholesterolaemia, cardiac events and fractures. This study reports the cost-effectiveness of initial adjuvant therapy with LET vs. TAM in postmenopausal women with HR+ early stage breast cancer from the UK NHS perspective based on preliminary analyses of published results of the BIG 1–98 trial. METHODS: A Markov model describes the occurrence of contralateral tumours; locoregional recurrence; soft tissue, bone, and visceral metastases, and treatment side effects (endometrial cancer, VTE, hip fractures, other fractures, hypercholesterolaemia, and MI). Clinical parameters for TAM were based on published results of the BIG 1–98 trial and other published studies, as were health-state utilities. Corresponding probabilities for LET were calculated by applying RRs for LET vs. TAM from the BIG 1–98 study. Costs of breast-cancer care were estimated using UK patient-level resource use data. Lifetime costs (2004UK£) and QALYs were estimated for HR+ women aged 61 years at diagnosis, discounted at 3.5% annually. RESULTS: Compared with TAM, LET results in an additional 0.33 QALYs (12.84 vs. 12.51). These benefits are obtained at an additional cost of £4079 (£12,474 vs. £8395). Cost-effectiveness of LET vs. TAM is £12,321 (95% CI £2672-£23,889) per QALY saved. CONCLUSION: Adjuvant treatment with letrozole is cost-effective from a UK NHS perspective compared with tamoxifen and should be considered in women diagnosed with HR+ early breast cancer.

PCN33

COST UTILITY ANALYSIS OF CHEMOTHERAPY IN ADVANCED OR RECURRENT GASTRIC CANCER: ORAL FLUOROPYRIMIDINE TS-1 VERSUS CONVENTIONAL INTRAVENOUS CHEMOTHERAPY

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OBJECTIVE: TS-1 is a newly developed oral anticancer drug. We previously reported the treatment costs for gastric cancer in Japan and suggested that TS-1 is cost saving compared to conventional intravenous chemotherapy. The aim of this study is to examine health utilities in gastric cancer patients and to assess the cost-utility of TS-1. METHODS: Patients with advanced or recurrent gastric cancer who were able to ingest meals were identified retrospectively from the ordering system database of Showa University Hospital between January 1998 and July 2001. The utilities of the patients during chemotherapy were assessed by oncology pharmacists on the basis of medical records (including information on mobility, meal ingestion, pain, and other symptoms), using the rating scale method, time trade-off method, standard gamble method and EQ-5D mapping procedure. The costs of the patients were calculated on the basis of hospital billing data. Cost-utility analysis was conducted from a societal perspective. RESULTS: Of the 23 patients who met the inclusion criteria, 13 received TS-1 and 10 received conventional intravenous chemotherapy. Mean (SD) utilities as measured by the rating scale method, time trade-off method, standard gamble method and EQ-5D mapping procedure were 0.89 (0.12), 0.90 (0.11), 0.94 (0.07), and 0.84 (0.18), respectively, in the TS-1 group. The corresponding utilities in the conventional intravenous chemotherapy group were 0.65 (0.18), 0.66 (0.18), 0.81 (0.12), and 0.52 (0.23), respectively. The utilities of the TS-1 were significantly (P < 0.05) higher than those of conventional intravenous chemotherapy by every technique. The mean monthly cost during chemotherapy was significantly lower in the TS-1 group than in the conventional intravenous chemotherapy group (£2481 vs. £6458, P < 0.05). CONCLUSION: TS-1, an oral anticancer agent, is a dominant strategy with a lower cost and a greater health outcome than conventional intravenous chemotherapy in patients with advanced or recurrent gastric cancer.
the assumptions about the length of the treatment benefit. CONCLUSIONS: Anastrozole is a cost-effective alternative to tamoxifen for the adjuvant treatment of postmenopausal women with HR+ early breast cancer from the UK NHS perspective, with the cost per QALY gained with anastrozole falling well within the range considered acceptable for reimbursement in the UK.

PCN35
A COST UTILITY ANALYSIS OF FULVESTRANT VERSUS EXEMESTANE IN THE SECOND LINE TREATMENT OF POSTMENOPAUSAL WOMEN WITH ADVANCED BREAST CANCER IN GREECE (PRELIMINARY RESULTS)
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OBJECTIVE: To estimate the cost and effects (measured in QALYs) of fulvestrant as replacement of exemestane in the second line treatment of postmenopausal women with advanced breast cancer (ABC) in Greece. The preliminary results are presented in this analysis. METHODS: A Markov model was used in order to compare cost effectiveness of two patient cohorts receiving: fulvestrant (cohort A) or exemestane (cohort B) as 2nd line treatment, megestrol acetate (A, B) as 3rd line treatment and a palliative care package (A, B). The perspective of the study was that of the National Health care System. Clinical evidence was derived from published clinical trials. Treatment effects were estimated in QALYs. Direct costs included drug therapy, oncologist visits, monitoring tests and adverse events treatment. Information on resource use was obtained from a panel of 3 oncology key opinion leaders. As patients can use either public or private sector, charges of both sectors for year 2005 will be used. Public sector prices are used in this analysis. The time horizon of the study was 11 years and the discount rate used for both costs and QALYs was 3.5%. RESULTS: Cohort A had a higher proportion of responders with a longer duration on 2nd line treatment. In a cohort of 100 patients, fulvestrant produces 8.1 extra QALYs at a 18% extra cost compared to exemestane resulting in an incremental cost effectiveness ratio (ICER) of €35,633 per QALY. However, as public sector charges highly underestimate cost of treatment, further scenario analysis will be carried out in order to capture true cost of treatment in Greece. CONCLUSIONS: Fulvestrant proves to be more beneficial than exemestane at an extra cost of €35,633 per QALY. Fulvestrant produces extra benefit with a reasonable extra cost for ABC patients in Greece.

PCN36
A COST UTILITY ANALYSIS OF FIRST-LINE CHEMOTHERAPY REGIMENS IN THE TREATMENT OF METASTATIC BREAST CANCER AFTER ANTHRACYCLINE FAILURE
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OBJECTIVES: Four chemotherapy regimens: gemcitabine-paclitaxel (Gem/Pac), paclitaxel in monotherapy (Pac), docetaxel in monotherapy (Doc) and docetaxel-capcitabine in association (Doc/Cap), are commonly used in the first-line treatment of metastatic breast cancer after anthracyclines failure. The purpose of the study is to rank these strategies according to their incremental cost-effectiveness ratios. METHODS: A Markov model was constructed in order to evaluate all 4 protocols, based on efficacy and tolerance data from recently published phase III studies. Ravdin showed superiority for Doc compared to Pac in monotherapy. O’Shaughnessy for the Doc/Cap regimen and the phase III registration study for the Gem/Pac showed superiority for Doc/Cap and Gem/Pac compared to Doc and Pac respectively. An indirect comparison of these 4 regimens was conducted, all possible scenarios with averages and extreme data were tested. The costs were calculated by adding DRG costs, onerous drug costs reimbursed over DRGs and transportation expenses. Costs of severe toxicities, diagnosis and palliative care, were taken into account. RESULTS: The Gem/Pac strategy appears to be the most effective compared to Doc, Pac and Doc/Cap. In terms of survival, Gem/Pac has an additional efficacy of 16.5 weeks and an incremental cost-effectiveness (ICER) of €5570 compared to Doc/Cap, with a ICER of €18,000 per year of life gained. In terms of survival adjusted to quality of life, the efficacy gain is 12.1 weeks and the ICER is €22,000 per year of life gained. When the D8 gemcitabine is administered at home, the Gem/Pac ICER is €12,000 year of life gained. CONCLUSION: The incremental cost-effectiveness ratios of Gem/Pac regimen are between €10,000 and €22,000 per year of life gained, still below the limits recognized as reasonable at the international level. Another advantage of the Gem/Pac combination therapy is to allow home care on day 8 of the cycle.

PCN37
IMPACT OF HEALTH CARE REFORMS AND CHANGING PAYMENT MECHANISMS ON HEALTH ECONOMIC EVALUATIONS IN GERMANY
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OBJECTIVES: Since January 1, 2004 several changes concerning payment mechanisms became effective. These changes include changes in drug costs (new definition for pharmacy add-ups (affecting primarily very low and high priced drugs, and mandatory manufacturer discounts), the introduction of a DRG-system for hospital care and a new tariff system for private practices. The impact of these changes on health economic evaluations using the third party payer perspective was evaluated. METHODS: Resource utilization data for two different intravenous therapies for an oncologic indication was collected from 89 quarterly fee listings of office based specialists in 2000. Findings were projected to the hospital care setting and an oral treatment option. The resource utilization data for each therapy and treatment setting were analyzed 3 times: 1) drug costs, physician services and hospital per diem rates (2002); 2) drug costs, physician services and hospital per diem rates (2004); and 3) drug costs, physician services and hospital DRG rates (2005). RESULTS: Compared to the 2002 analyses treatment cost in 2005 in private practices decreased by 3–18%, mainly due to lower drug costs. Cost for hospital treatment changed in different directions depending on the type of hospital. Treatment cost in municipal hospitals increased by 52%–229%, whereas cost in university hospitals decreased by 1%–65%. CONCLUSION: Recent changes due to health care reforms and resulting changes in payment mechanisms had a major impact on calculating treatment costs from a third party payer perspective in Germany. Although these results refer to an oncologic indication, it is very likely that similar differences will be observed in other therapeutic areas as well. Results of health economic evaluations from the third party payer perspective performed prior to 2005, particularly those involving hospital care and not using DRGs may be misleading today and re-analysis should be seriously considered.