Short-term reductions in the probability of disease recurrence associated with adding bevacizumab to an adjuvant chemotherapy regimen for patients with early TNBC were projected to improve quality-adjusted survival and potentially be cost-effective given recent discussions concerning willingness-to-pay thresholds in the UK.

PCNS2
ECONOMIC EVALUATION OF FULVANTRINE (FLUDRABINE) AS AN ADDITIONAL ENDORCINE STEP IN THE TREATMENT SEQUENCE FOR HORMONE-RECEPTOR POSITIVE ADVANCED AND METASTATIC BREAST CANCER IN ISRAEL

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OBJECTIVES: To evaluate the cost-effectiveness of fulvantrine as an additional hormonal agent in the treatment sequence of postmenopausal women with ER+ advanced or metastatic breast cancer from the perspective of the Israeli health care system.

METHODS: A Markov model was developed to compare two identical cohorts of patients: one with fulvantrine as either a 2nd or 3rd line therapy and the other without.

Treatment efficacy and other clinical parameters were estimated using a systematic review of RCTs and survey of oncologists in the UK and Israel. Unit costs for drugs and other health services were estimated from nationally published sources, and reported in 2008 NIS. Utility values for each health state were derived from a survey of seven oncologists. All future costs and benefits (QALYs) were discounted at 3%. One-way and probabilistic sensitivity analyses were conducted to examine the robustness of the results. RESULTS: The addition of fulvantrine to the treatment sequence as a 2nd line therapy resulted in a mean gain of 0.04 QALYs and cost savings of over 8,000 NIS per patient. Addition of fulvantrine as a 3rd line therapy resulted in a gain of 0.03 QALYs and savings of approximately 13,000 NIS. Sensitivity analyses demonstrated these results to be robust under a wide range of assumptions. CONCLUSIONS: Our analysis demonstrated that addition of fulvantrine to the treatment sequence of ER+ advanced breast cancer patients is highly likely to be a cost-saving intervention strategy in Israel for both 2nd and 3rd line treatments.

PCNS3
EFFECTIVENESS OF HUMAN PAPILLOMAVIRUS VACCINE FOR PREVENTION OF CERVICAL CANCER IN TAIWAN

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OBJECTIVES: Human papillomavirus (HPV) infection had been demonstrated as a major risk factor for cervical cancer. Vaccines against HPV-16 and HPV-18 appeared highly effective in preventing HPV-16 and HPV-18 infections and cervical lesions, including cervical cancer. However, only limited available data described the health and economic implications of HPV vaccination in Taiwan. The objective of this study was to assess the cost-effectiveness of prophylactic HPV vaccination for prevention of cervical cancer in Taiwan. METHODS: We developed a Markov model to compare the health and economic outcomes of vaccinated preadolescent girls (at age of 12 years old) for prevention of cervical cancer with current practice. Data were synthesized from published papers, and whenever possible, those specific to Taiwan were used. The economic analysis adopted the health care payer’s perspective, and only direct medical costs were taken into account. Sensitivity analyses were performed to account for important uncertainties and different vaccination scenarios. RESULTS: Under the assumption that the HPV vaccine would provide lifelong protection, vaccination among preadolescent girls in Taiwan would result in a life expectancy gain of 1.2 years in the 1000 women with quality-adjusted life years at cost saving than the current screening practice. The incremental cost-effectiveness ratio (ICER) was $26,227 vs. $5,956 for controls; p = 0.001. The primary drivers for this more than quadruple cost difference between the two groups: were prescription drugs ($2,625 vs. $1,361; p < 0.001); hospitalizations ($5,111 vs. $1,706; p < 0.001); laboratory tests ($3192 vs. $3152; p = 0.001); and radiology tests ($1284 vs. $195; p < 0.001). Resource utilization over the 12-month period showed that the women with BC, when compared to the control group, had a significantly greater (p < 0.001) mean number of prescriptions drugs (30±17); hospitalizations (0.3±0.1); radiology tests (14±3); and laboratory tests (23±8). The results were similar for analyses conducted on 2006 and 2005 data. CONCLUSIONS: The significantly higher 12-month resource utilization and health care costs noted in women diagnosed with BC, compared to age and gender matched controls, are primarily driven by an increased need for prescription drugs, hospitalizations, radiology tests, and laboratory tests.

PCNS4
IMPACT OF BONE METASTASES (BM) ON HEALTH CARE COSTS BEFORE AND AFTER OCCURRENCE OF SKELLETAL RELATED EVENTS (SREs) IN MEN WITH PROSTATE CANCER (PC)

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OBJECTIVES: Clinical trial results suggest that patients with PC-BM may experience SREs at an average of 16 months after the time of BM diagnosis. Prior studies examined the cost of SREs in patients with PC-BM but have not evaluated the period from BM diagnosis to development of SREs. We examined costs in men with PC-BM before and after the occurrence of SREs. METHODS: This study used claims data from a large, U.S. health insurance plan spanning January 2003-December 2007. Patients were included in the analysis if they were male and had: diagnoses of PC and BM, at least one claim for hormonal therapy (HT) in the year prior to BM, a complete claims history and no claims for malignancy in the year prior to BM diagnosis. SREs were identified based on CPT/ICD-9 codes and included radiotherapy, palliative fracture care, bone, spinal cord compression, or hypercalcemia. The impact of BM and SREs on total health care costs (i.e. inpatient, outpatient, pharmacy) for the period six months prior to BM ending with disenrollment or end of the study period was evaluated using repeated-measures generalized linear model regression. RESULTS: Of 216,554 PC patients, 10,520 had a diagnosis of BM, with 4,988 receiving HT in the year prior to BM. Of these, 1,385 met all inclusion criteria, including 652 (47%) with 21 SRE and 733 with no SRE (53%). Mean total health care costs were $23,481/person-year (PY) in the 6 months prior to BM. On an adjusted basis, costs increase $5,722/PY with BM and no SREs (p < 0.001) and by $17,302/PY with BM and SREs (p < 0.001). BM without SREs was associated with 91% increase in hospitalization risk; BM with SREs, a 181% increase in hospitalization risk; CONCLUSIONS: BM is associated with increased total health care costs, even in the absence of SREs in patients with PC.