and varying survival rates according to radiation field. RESULTS: We compared two two-arm randomized RCTs: one in China [11], and one in Colombia [12]. The combination of nafatalinib CR with chemotherapy extends the median time to progression (TTP) compared to chemotherapy alone. The median OS was 12.5 months for the combination arm and 8.7 months for the chemotherapy alone arm. The absolute improvement in OS was 3.8 months (95% CI: 0.4 to 7.2 months). CONCLUSIONS: The combination of nafatalinib CR with chemotherapy significantly improves overall survival compared to chemotherapy alone. The results of this study support the use of nafatalinib CR as a first-line treatment for patients with advanced NSCLC.

PCN19 COST-EFFECTIVENESS OF FIRST-LINE THERAPY FOR ADVANCED NON-SMALL CELL LUNG CANCER (NSCLC) Yu-Mei Tan1, Hsiao-Ting Yang2, Wei-Min Chao3, Yu-Kang Chang4
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OBJECTIVES: To assess the cost-effectiveness of first-line therapy for patients with advanced NSCLC (NEC) by comparing two regimens: 1) Gemcitabine-based chemotherapy (Gem) and 2) Nilotinib-based chemotherapy (Nil). The primary outcome is the cost-effectiveness ratio (CER) of chemotherapies. The single-payer model is used to assess the costs and effects of Gem and Nil therapy. Data related to medical resource use, efficacy of the drugs and health related quality-of-life status came from the clinical trials and studies by the results of a Network Meta-Analysis (NMA). Direct cost data was obtained from the Bureau of National Health Insurance (BNHI) and BNHI claims data released by the Collaboration Center of Health Information Application. Outcomes included life-years, quality-adjusted life years (QALYs), and incremental cost-effectiveness ratios (ICERs). The single-payer BNHI perspective is used and costs are expressed in New Taiwan dollars (NT$). The discount rate of costs and effects is 5%. RESULTS: Treatment with Afatinib is superior to Gemcitabine chemotherapy at all cost categories. Compared to gefitinib, patients treated with afatinib in the 1st line setting have an increase of 0.02 QALYs with less cost (NT$-56,216). The actual cost, direct cost and cost-effectiveness ratio were calculated. The Markov simulation model was constructed based on the natural history of breast cancer with TreeAge Pro 2011. The model was running over thirty years (each cycle was 3 month), and the analysis was performed by comparing two strategies: 1) Hospital-based follow-up and 2) Alternative follow-up involving post-therapy PET and nurse-led telephone interview. A model was built using data from a prospective institutional registry study of 105 consecutive women underwent definitive chemoradiation therapy. Based on published institutional data, it was estimated that patients who had a complete metabolic response identified by PET would have 5-year overall-survival of 93% and 1.5% recurrence rate, while those with out CMR would have a 5-year overall-survival of only 36%. The impact of uncertain patient recovery rates was incorporated into the model, which was robust to a range of survival gain estimates and other parameters. CONCLUSIONS: The alternative follow-up strategy involving post-therapy PET is likely to be cost-effective when compared to the current practice.

PCN22 HEALTH ECONOMIC EVALUATION OF GUANGDONG RURAL TERTIARY BREAST CANCER SCREENING AND DIAGNOSIS SYSTEM Wang Q1, 2, Shen Y1, 2, Cui F3, Ma H1, Liang Y1, Qi Y1
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OBJECTIVES: To compare the cost-effectiveness of breast cancer screening and diagnosis in Guangdong province. METHODS: Using data from Guangdong project to evaluate the validity and reliability of screening and diagnostic strategies. The intervention group received routine screening and diagnosis system, while control group received routine screening. RESULTS: The intervention group involved 26224 females while the control group involved 24282. The detection rate of breast cancer was 1/10 million. During the following 30 years, comparing to the control group, the percentage of stage breast cancer improved from 45.83% to 58.76%. Furthermore, the highest detection rate was found in women aged from 45 to 65. In order to detect one case of breast cancer, the number of need to evaluate for screening program was 5595. Cost-effectiveness analysis was performed and the cost was NT$2,231.55 per case detected (2014, $337.71 per case). The cost-effectiveness analysis was performed by comparing two strategies: 1) Hospital-based follow-up and 2) Alternative follow-up involving post-therapy PET and nurse-led telephone interview. A model was built using data from a prospective institutional registry study of 105 consecutive women underwent definitive chemoradiation therapy. Based on published institutional data, it was estimated that patients who had a complete metabolic response identified by PET would have 5-year overall-survival of 93% and 1.5% recurrence rate, while those with out CMR would have a 5-year overall-survival of only 36%. The impact of uncertain patient recovery rates was incorporated into the model, which was robust to a range of survival gain estimates and other parameters. CONCLUSIONS: The alternative follow-up strategy involving post-therapy PET is likely to be cost-effective when compared to the current practice.

PCN23 COST-EFFECTIVENESS OF POST-THERAPY PET AND TELEPHONE INTERVIEW IN THE CLINICAL FOLLOW-UP OF PATIENTS TREATED WITH LOCALY ADVANCED CERVICAL CANCER Hou J1, Siva P1, Haas M1, Viney R1
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OBJECTIVES: To assess the cost-effectiveness of post-therapy PET and telephone interview in the clinical follow-up of patients with locally advanced cervical cancer. METHODS: We performed a systematic literature search of the MEDLINE, EMBASE, and Google Scholar. Other databases included the Web of Science using such search terms “filgrastim”, “pegfilgrastim”, “cost analysis,” and “economic evaluation.” Studies were limited to primary research in patients with solid tumor cancer, specifically, studies comparing filgrastim with pegfilgrastim. Six studies were identified by the Medline search and 6 studies were identified by the Google Scholar search. A total of 12 studies were included in the meta-analysis. RESULTS: Six studies fulfilled the inclusion criteria. All the studies were modeled hypo- or hypercausal, and the cost-effectiveness analysis was performed in Korea. CONCLUSIONS: The alternative follow-up strategy involving post-therapy PET is likely to be cost-effective when compared to the current practice.

PCN24 ECONOMIC EVALUATION OF PRIMARY PROPHYLAXIS USING FILGRASTIM VERSUS PEGFILGRASTIM IN PATIENTS WITH SOLID TUMOR CANCER: A SYSTEMATIC LITERATURE REVIEW AND META-ANALYSIS San D1,2, Gharabeh M1,2, Altyar A1,2, MacDonald K1, Martin J1,4, Ibrahim A2
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OBJECTIVES: To compare the cost-effectiveness of primary prophylaxis with filgrastim versus pegfilgrastim in patients with solid tumor cancer receiving myelosuppressive chemotherapy. METHODS: We performed a systematic literature search of the MEDLINE, EMBASE, and Google Scholar. Other databases included the Web of Science using such search terms “filgrastim”, “pegfilgrastim”, “cost analysis,” and “economic evaluation.” Studies were limited to primary research in patients with solid tumor cancer, specifically, studies comparing filgrastim with pegfilgrastim. Six studies were identified by the Medline search and 6 studies were identified by the Google Scholar search. A total of 12 studies were included in the meta-analysis. RESULTS: Six studies fulfilled the inclusion criteria. All the studies were modeled hypo- or hypercausal, and the cost-effectiveness analysis was performed in Korea. CONCLUSIONS: The alternative follow-up strategy involving post-therapy PET is likely to be cost-effective when compared to the current practice.

A736 VALUE IN HEALTH 17 (2014) A719–A813