OBJECTIVES: To evaluate the clinical effectiveness of sorafenib and sunitinib in metastatic renal cell carcinoma (RCC) by using indirect comparison meta-analysis.

METHODS: Systematic literature search of Medline, Embase, Cochrane databases, PubMed, and the Cochrane Renal Cancer Group's Trials Register. We included randomized controlled trials comparing sorafenib and sunitinib for first-line treatment of advanced RCC in patients with advanced RCC. Two studies were included. Median progression-free survival was prolonged with the treatment of sunitinib (11 months) compared to interferon alfa (5 months). For the comparison of sorafenib and interferon alfa, the median progression-free survival was similar (median PFS: 5.7 months vs. 5.6 months). Indirect comparison suggest that sorafenib is not superior to sorafenib for prolongation of progression free survival (hazard ratio 0.37, 95% CI 0.23 – 0.58, P = 0.019).

CONCLUSIONS: There is no significant evidence to suggest that treatment with sunitinib has clinical advantages over treatment with sorafenib in patients with metastatic RCC.

Risk of Breast Cancer Among Users of Postmenopausal Hormone Replacement Therapy in Taiwan

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OBJECTIVES: To determine whether the association between the different dosage of hormone replacement therapy (HRT) and the incidence of breast cancer (BC) in postmenopausal women with HRT formulation. METHODS: Patients who had at least one outpatient visit for postmenopausal syndrome (ICD-9-CM code 627) with estrogen prescription in Taiwan National Health Insurance (NHI) claims database during 1999–2006 were identified as the study cases. There were 883,052 women identified from the database. The index date was defined as the date of the first menopausal visit with estrogen prescription during the study period. To identify any BC events, each case was tracked from the index date until December 31, 2006 or death, whichever came first. Women without events were censored on December 31, 2006. Survival analysis was performed to assess whether cumulative estrogen dosage and combined progesterone were independent risk factors of BC. RESULTS: A total of 5324 cases of BC were identified during the study period. Women with higher dosage of estrogen had significantly higher risk of BC than women with lower dosage (HR = 2.23, P < 0.0001). The risk of BC was even higher when progesterone was combined with estrogen (HR = 1.08, P = 0.036). Women aged 60-69 (HR = 0.87, P = 0.002) and ≥70 (HR = 0.66, P < 0.0001) had lower risk of BC, compared with women aged <60. Women living in the northern part of Taiwan and in areas with higher urbanization level had higher risk of BC, compared with their counterparts. CONCLUSIONS: Hormone replacement therapy in postmenopausal women seemed to be associated with an increased risk of BC.
to examine health and cost burden of HPV-related diseases to understand the potential impact of introducing HPV vaccine. OBJECTIVES: We aimed to evaluate the long-term health and cost burden associated with cervical cancer, cervical intraepithelial neoplasia (CIN) and genital warts from health-care provider perspective in Thailand. METHODS: We adapted a state-transition Markov model to simulate the epidemiology of stages of cervical cancer, CIN and genital warts in a hypothetical cohort of 100,000 12-year-old girls. Costs included diagnosis and treatment costs of HPV related diseases. Probabilities at each chance node in the model were derived from the Thai National Health-care context. RESULTS: The highest incidence of CIN and genital warts was observed among women aged 20–30 years. For cervical cancer, the highest incidence was observed among women aged 45–55 years. Death rate was estimated at 2%, 8%, 34%, and 94% for cervical cancer stage IA1, IA2-IIA, IB-IVA, and IVB, respectively. The mean direct cost per patient with cervical cancer stage IA1, IA2-IIA, IB-IVA, IB, CINI, CIN2/3 and genital warts were US$1277, US$3102, US$12,506, US$10,019, US$167, US$1511, and US$111, respectively. The overall lifetime costs were estimated at US$26.7 million for a cohort of 100,000 women, which corresponded to approximately US$132.0 million for the current entire cohort of 12-year-old girls in Thailand. CONCLUSIONS: HPV-related diseases impose significant health and cost burden in Thailand. The potential impact on HPV-related diseases of a national immunization program with HPV vaccine should be examined to inform the policy discussions around the HPV vaccination program in Thailand.

**PCN1**

**PREVENTION OF OXALIPLATIN HYPERSENSITIVITY REACTION AND COST SAVING**

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**OBJECTIVES:** Hyper-sensitivity reactions have been reported inOXALiplatin for the treatment of advanced colorectal cancer (mCRC). The reported incidence of hyper-sensitivity reactions (HSRs) is approximately 12%, with 1–2% of patients developing grade 3 or 4 reactions which may postpone lase of stay and incur extra cost for the treatment of hyper-sensitivity reactions. METHODS: This is a retrospective observational study. Medical records of hospitalized patients with mCRC, who treated with FOLFOX regimen and occurred mild to severe HSRs were identified and reviewed by oncology pharmacist from January 2004 to February 2010. Direct medical cost for the treatment of HSRs and the extra days of hospitalization were calculated. We compared the direct medical cost for patients whose oxaliplatin was discontinued (group A) and those oxaliplatin was continued (group B) for treatment. After the computer detected patients’ allergy and the signal was appeared on the screen of physician-order-entry-system. Student t test was used for data analysis. RESULTS: A total of 442 patients with the diagnosis of mCRC and who had reported moderate to severe HSRs during the treatment of FOLFOX regimen through our computerized decision support system (patients allergy history alert system) were included in this study. Twenty-four of 442 patients reported mild to severe hypersensitivity reactions caused by oxaliplatin. The total direct medical costs for 24 patients were NT$86,352,000. The direct medical cost to manage HSRs in group A was higher than that in group B. CONCLUSIONS: Oxaliplatin induced severe hypersensitivity reaction is scare, but it may cause an extra direct medical costs if it is appearance. To develop a computerized alert signal is helpful and is likely to save costs.

**PCN2**

**COST-EFFECTIVENESS OF THE ONCOTYPE DX® ASSAY IN AUSTRALIA: AN EXPLORATORY ANALYSIS**

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COST -EFFECTIVENESS OF THE ONCOTYPE DX® ASSAY IN AUSTRALIA: AN EXPLORATORY ANALYSIS

**OBJECTIVES:** The Oncotype DX® (ODX) assay is a molecular diagnostic assay that measures quantitative expression of 21 genes within a breast tumor sample. The result is reported as a recurrence score (RS) that correlates with the risk of 10-year recurrence. The potential cost impact on chemotherapy treatment and an exploratory cost utility analysis were undertaken from the Australian health-care system perspective. METHODS: Input on the proportion of patients treated with chemotherapy and treatment regimens were obtained from an Australian panel and a supplementary survey of Australian clinicians (oncologists and surgeons, n = 12). Data on the proportion of patients who would forgo chemotherapy based on knowledge of the RS and the incidence and cost of adverse events were obtained from published literature. RESULTS: The clinician input indicated that 33% of node negative and 44% of node positive women would receive adjuvant chemotherapy on average. The most common treatments for node-negative patients were AC (anthracycline and cyclophosphamide) (77%) and FEC100 (fluoro-uracil, epirubicin and cyclophosphamide) (16%) and for node-positive patients FEC (FEC100) (44%), AC + paclitaxel (14%) and TAC (docetaxel + cyclophosphamide) (14%). Published switch rates away from chemotherapy are 20% for node negative and 24% for node positive patients. The cost saving due to a reduction in chemotherapy was estimated to be A$26,64 per woman treated. After consideration for the cost of the assay (A$4200) and a published utility rate of 0.5, a QALY was estimated at A$9986. CONCLUSIONS: Knowledge of the Oncotype DX RS has a cost-offset due to the reduction in chemotherapy and is likely to be cost-effective. These benefits reflect the quality of life and survival benefits of a more targeted approach to treatment decision-making. Further analysis is warranted to include the potential costs of relapse avoided by use of the assay and any patient indirect costs in Australia.