A273
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PCN24
A COST-UTILITY ANALYSIS OF CERVICAL CANCER SCREENING AND HUMAN PAPILLOMAVIRUS VACCINATION IN THE PHILIPPINES

Guerrero AM1, Cenamento AM2, Santillan MC1
1Department of Health Philippines, Manila, Philippines, 2Philippine Health Insurance Corporation, Pasay City, Philippines

OBJECTIVES: To evaluate the health and economic benefits of different screening and vaccination strategies against cervical cancer in the Philippines. METHODS: A cost-utility analysis was conducted using an existing semi-Markov model to evaluate different screening (i.e. PAP smear, visual acetic acid) and vaccination strategies against HPV infection implemented alone or as part of a combination strategy at different coverage scenarios. From a health system perspective, the researchers ran the model using covariate-specific epidemiologic cost and clinical parameters. Sensitivity analysis was performed for vaccine efficacy, duration of protection and costs of vaccination, screening and treatment. RESULTS: Across all coverage sce-
narios, the model predicted cost-saving strategies resulting in ranges from Php 191,099 to Php 61,058.73 per QALY gained. Due to its high cost in the Philippines, Pap smear was found to be not cost-effective. At a cost of Php 2,400 per vaccinated girl, vaccination was found to be cost-effective at a threshold of 1 GDP per capita with the most favorable assumption of providing lifelong immunity against high-risk oncogenic HPV types 16/18. The highest incremental QALY gain was achieved with 80% coverage of the combined strategy of VIA at 35 to 45 years old done every five years following vaccination at 11 years of age with an ICER of Php 33,126. HPV vaccination becomes less cost-effective when vaccine protection lasts for less than 15 years. CONCLUSIONS: High VIA coverage targeting women aged 35–45 years old at five-year intervals is the most efficient and cost-saving strategy to reduce cervical cancer burden in the Philippines. Adding a vaccina-
tion program among 11-year-old girls at a cost of Php 2,400 per vaccinated child is potentially cost-effective with the most favourable assumption that the vaccines provide lifelong immunity against HPV 16/18.

PCN25
MEASURING THE TREND OF USE OF TARGETED THERAPY AND ECONOMIC EVALUATION OF Gefitinib FOR ADVANCED NON-SMALL CELL LUNG CANCER (NSCLC) IN SINGAPORE

Lim PS1, Chan YF2, Chew L1
1National University of Singapore, Singapore, 2National Health System, Singapore

OBJECTIVE: Cancer therapy has been revolutionized by the introduction of tar-
tgeted therapy. Tremendous growth of its utilization was observed in Singapore over the past decade. Despite high treatment cost, most of the targeted therapies were not funded by Singapore’s unique health care financing system. Hence, this study aims to determine the trends of use of targeted therapy in National Cancer Centre Singapore from 2007–2011. In addition, treatment response and economic evaluation of the therapy for advanced NSCLC will be conducted to aid decision making. METHODS: In this retrospective study, number of patients and annual consumption costs for each targeted therapy were determined. A total of 124 chemotherapy-naive patients were identified to examine treatment response and costs used for Gefitinib. These were reviewed via electronic databases and medical reports. A Markov model was developed by using patient level data and utility values from literature. Cost-utility analysis was performed from health care provider’s perspec-
tive with a 3% discount rate of direct medical costs (2012 Singapore dollar) and discount rate of 3%. RESULTS: Dominant trends were observed in utilization of Trastuzumab (35%), Gefitinib (25%) and Bevacizumab (12%) over last 5 years. For Gefitinib, partial response and stable disease were 23.4% and 64.5% respectively. It resulted in 29,078.92 Baht per quality adjusted time day to progression per patient. For Bevacizumab, partial response and stable disease were 23.4% and 64.5% respectively. Cis/Pem regimen had a higher total cost of 463,678 Bath per case while gains of 4.3% and 11% were observed for quality adjusted time day to progression for Bevacizumab and Gefitinib respectively. The ICER increased by about 31% for both strategies when HPV6/11- related effects were excluded. CONCLUSIONS: This is first such study in breast cancer patients undertaken in China. Abraxane® – Patient-Reported Outcomes & Patient Preference

PCN26
ABRAXANE VERSUS TAXOL FOR PATIENTS WITH ADVANCED BREAST CANCER: A PROSPECTIVE TIME AND MOTION ANALYSIS FROM A CHINESE HEALTH CARE PERSPECTIVE

Dransirisiri O1, Yu B2, Wang L3, Peng Y1, Sun W4, Zhou Y2, King F2, Kauria S1, Zhang A1
1Augmentum Pharma Consulting, Toronto, ON, Canada, 2Fudan University Shanghai Cancer Center, Shanghai, China, 3Cancer hospital of CAMS, Beijing, China, 4Jiangsu Provincial Cancer Hospital, Jiangsu, China, 5Shanghai Centennial Scientific, Shanghai, China, 6Cegene Corporation, Summit, NJ, USA

OBJECTIVES: Abraxane® and Taxol® are both effective anticancer treatments for the treatment of advanced stage breast cancer. However, each agent possesses unique drug delivery characteristics with the former not requiring premedication and having a consider-
ably shorter recommended infusion time (≤ 30 min vs. 120–240 min). To determine the overall efficiency and cost associated with Abraxane® relative to Taxol®, a time and motion study was undertaken in breast cancer patients treated in China. METHODS: Baseline data collection included patient and disease charac-
teristics. Time and resource use data were then collected from breast patients being treated with Abraxane® (n = 12) or Taxol® (n = 15) in one of three cancer clinics located in Jiangsu, Shanghai and Beijing. Resource use and time impact on clinical staff were measured using unit cost estimates. This included costs for drug preparation, administration, materials and supplies, premedication, patient chair time, labor costs and all acute adverse drug reactions. All costs were reported in RMB ($US = 6.1 RMB). RESULTS: Approximately 9 of 12 (75%) patients received Abraxane® as on a weekly schedule compared to 6 of 15 (40%) with Taxol®. There were 5 (33.3%) acute adverse drug reactions with Taxol®, 3 of which required a physician visit and the initiation of supportive interventions. In contrast, there was only one minor event with Abraxane® (≤ 5%) as there was a transient period of the infusion. From the time and motion study, the mean total time for Abraxane® and Taxol® delivery was 84 and 282 minutes (p < 0.001), with the associated costs being 352 and 1,798 respectively per dose (p < 0.001). CONCLUSIONS: To our knowledge, this is first such study in breast cancer patients undertaken in China. Abraxane® was associated with fewer acute adverse drug reactions and significant reductions in health care resources, physician/nurse time and overall drug delivery costs com-
pared to Taxol®.

PCN27
COST-UTILITY ANALYSIS OF FIRST-LINE REGIMEN BETWEEN CISPLATIN PLUS PEMETREXED AND CARBOPLATIN PLUS PACLITAXEL IN ADVANCED NON-SQUAMOUS NON-_SMALL-CELL LUNG CANCER IN THAILAND

Pipunsak P

OBJECTIVES: The study aimed to explore knowledge on HPV, and to learn about women’s attitudes towards vaccination in Thailand. METHODS: A quantitative cross-sectional study was performed among the mothers of girls students in a primary edu-
cancer (>54%), CIN1 (>71%), CIN2/3 (>70%), genital warts among females (>75%) and males (>52%), and cervical cancer deaths (>52%). Routine vaccination also resulted in reduction of disease costs for cervical cancer (≥24%), CIN1 (≥42%), CIN2/3 (≥41%), genital warts in females (≥52%) and males (≥42%). The reduction in HPV6/11-related disease incidence costs and incidence costs avoided occurred relatively soon after vaccination, especially CIN1/2-3. The recommended cost of the HPV/THB/ QALY, both routine and routine plus catch-up programs are cost-effective with discounted incremental cost-effectiveness ratios (ICER) of 35,124 and 34,426 THB/QALY, respectively. Sensitivity analysis was performed for vaccine efficacy, duration of protection and costs of vaccination, screening and treatment. RESULTS: Across all coverage sce-
narios, the model predicted cost-saving strategies reducing of 463,678 Bath per case while gains of 4.3% and 11% were observed for quality adjusted time day to progression for Bevacizumab and Gefitinib respectively. The ICER increased by about 31% for both strategies when HPV6/11- related effects were excluded. CONCLUSIONS: This school-based HPV vaccination program, using the quadrivalent HPV vaccine, is cost-effective, particularly when catch-up vaccination is incorporated. The results support decision-making process to include HPV vaccination in Thailand NIP.