We developed a decision model comparing IHC/MSI tumor testing (IHC/ MSI) followed by bladder ablation of the suspected gene to two high NMBI universal screening strategies: (1) NGS as a reflex test to IHC/MSI testing if these tests suggest a protein abnormality; (3) use of a NGS gene panel in all patients with CRC. Outcomes measured were life-years gained, quality adjusted life years (QALYs). Sensitivity analysis was based on published treatment guidelines. RESULTS: Compared to the reference strategy, the price per QALY gained was $196,000 for universal NGS gene panel testing. When using NGS gene panel as a reflex test to IHC/MSI, the price per QALY gained was $2,000. The ethical influential variables in the one-way sensitivity analysis were the number of relatives tested, the prevalence of Lynch syndrome in CRC patients and the cost of CRC surveillance in relatives with Lynch syndrome detected. CONCLUSIONS: Use of NGS in all colorectal cancer patients to detect inherited cancer and inform family members is unlikely to be cost-effective despite the lower base pair sequencing cost of NGS. However, NGS may be cost-effective when used as a complement to tumor issue testing strategies. Further studies are needed to validate these findings.

**PCN110**

**AN OUTCOMES MODEL FOR HIGH-RISK NON-MUSCULAR INVOLVING BLADDER CANCER TREATMENT OPTIONS**

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OBJECTIVES: High-risk, non-muscle-invasive bladder cancer (NMIBC) is heterogeneous in its presentation, resulting in patient subpopulations with diverse treatment needs. A comprehensive model estimating costs and effectiveness for patients with various NMIBC treatment strategies is needed for diverse patient subpopulations. METHODS: A Markov model simulating patient outcomes was developed based on published clinical trial guidelines. Initial health states were non-muscle-invasive tumor, muscle-invasive progression (MIP), and metastasis. Four patient populations were considered: (1) high-risk T1 or Ta tumors; (2) Carcinoma in situ (Cis) only; (3) high-risk Ta bladder tumors with concomitant bladder CIS; and (4) high-risk T1/Ta tumors and/or Cis. Treatment options include trans-urethral resection (TUR) and adjuvant intravesical bacillus Calmette-Guérin (BCG), mitomycin C (MMC) or valrubicin for populations (1), (3), and (4), or intravesical treatment alone for population (2). The model assesses treatments as first- or second-line, or as alternatives for patients intolerant of or refractory to other treatment. Radical cystectomy is performed after MIP or repeated treatment failure. Response (in patients with Cis) and recurrence rates and percentages of BCG-intolerant/refractory patients were estimated from the literature. Costs were obtained from publicly available sources. The model was validated against published epidemiology and cost data. RESULTS: The lifetime cost per person of treating high-risk T1/Ta patients with BCG was within 20% of unmet health care budget constraints. Additional costs are incurred for patients who progress to muscle-invasive disease, an improvement in LY, diminish the use of chemotherapy and optimize institutional resources.

**PCN111**

**COST-EFFECTIVENESS ANALYSIS OF BEVAZUCIZUMAB IN COMBINATION WITH PC REGIMEN VS REGIMEN IN NON-SMALL CELL LUNG CANCER TREATMENT**

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OBJECTIVES: Favorable advance in treatment of NSCLC has been made since the late 1990s, remarkably with the development of targeted drugs such as bevacizumab (BEV). Despite of the promising established economic models. The lifetime cost per person of treating BCG-intolerant/refractory Cis patients with valrubicin was estimated to be 45% higher than for cytectomy. Adverse event costs for the general high-risk NMIBC population treated with BCG account for 17% of the total treatment cost compared with 5% for MMC. Approximately 40% and 15% of patients treated with BCG eventually undergo cystectomy and MIP, respectively. CONCLUSIONS: This validated model can be used to estimate costs and health outcomes associated with existing treatment strategies as well as the cost-effectiveness of novel intravesical therapies.

**PCN112**

**ECONOMIC EVALUATION OF FUVESTRAIN 500MG FOR THE TREATMENT OF POSTMENOPAUSAL WOMEN WITH ADVANCED BREAST CANCER WHO HAVE PROGRESSION ON ENDORCINE THERAPY**

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OBJECTIVES: To estimate the potential public health impact of a 9-valent HPV vaccine (HPV9) in Japan in preventing HPV-related dis-eases. BACKGROUND: In Mexico breast cancer reported an incidence of 13,939 cases and 5,217 mortality cases in 2008. Between 40-50% of those cases are diagnosed in stages III and IV. OBJECTIVES: The aim of this study was to assess a cost-effectiveness analysis for the use of fulvestrant 500mg as a therapy for postmenopausal women with locally advanced or metastatic breast cancer with ER receptor and progesterone receptor positive tumors. METHODS: A cost-effectiveness analysis was performed using a Markov model, with a time horizon of 1 and 5 years according to a prior economic evaluation, and based on the results from CONFIRM study. Two cohorts of treatment were compared; Cohort A contemplates the addition of fulvestrant to the standard treatment and Cohort B the standard treatment. The effectiveness was measured as Life Years Gained (LY). The use of resources was determined from the clinical practice in Mexico. Costs and ICER per LY were calculated from public health perspective in Mexico. RESULTS: The ICER of BCP regimen versus PC regimen in treatment of NSCLC accounts for around 573,199,170 VND, which is around 4 times higher than that of PC regimen. The cost-effectiveness analysis for the use of fulvestrant is a cost-effective strategy that provides a longer period of stable disease, an improvement in LY, diminish the use of chemotherapy and optimize institutional resources.

**PCN113**

**ASSESSMENT COST-EFFECTIVENESS OF PEGFILGRASTIM AND FILGRASTIM IN PEDIATRIC PATIENTS WITH SOLID TUMORS**

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OBJECTIVES: Evaluate the cost- effectiveness of pegfilgrastim compared with filgrastim relationship in preventing febrile neutropenia in pediatric patients with solid tumors. METHODS: A retrospective cohort study from 2012 to 2014, and was made micro-cost technic. Records of pediatric patients diagnosed with solid tumors receiving pegfilgrastim and filgrastim post-chemotherapy for prevention of febrile neutropenia were collected. The absolute neutrophil count less than 1000 cells per milliliter blood and fever ≤ 38.2 °C. This study adheres to the principles of the Declaration of Helsinki, followed clinical guidelines and has been approved by Hospital bioethics committee. RESULTS: 120 and 152 cases of pegfilgrastim and filgrastim respectively were included. The mean age was 9 years, 63 % male and 47 % female. The absolute neutrophil count was 6,204 with pegfilgrastim and filgrastim 2,332. Filgrastim was more effective cost $1195 per person thousand neutrophils, in cases where lower doses were administered to 200 micrograms per maximum 7 days. The cost-effectiveness of pegfilgrastim was $2,484 per thousand neutrophils, reaching a cost effective advantage in cases of patients over 40 kilos would require 7 to 14 doses of filgrastim. No significant differences of patients in terms of sex, age, treatment follow up or post- chemotherapy preventing neutropenia were observed. CONCLUSIONS: Filgrastim maintains effective cost advantage over pegfilgrastim when the dose is less than 200 micrograms in a treatment period of at least 7 days.

**PCN114**

**RATIONALIZED CLINICAL STUDY TO EVALUATE EFFECTS OF EICOSAPENTAENOIC ACID ENRICHED ORAL NUTRITIONAL SUPPLEMENT ALONG WITH RADIO-CHEMOTHERAPY IN PATIENTS WITH COLORECTAL CARCINOMA: A COST-EFFECTIVENESS ANALYSIS**

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OBJECTIVES: To estimate the potential public health impact of a 9-valent HPV vaccine (HPV9) in Japan in preventing HPV-related diseases. METHODS: A randomized clinical study compare effects of pre-operative eicosapentaenoic acid enriched oral nutritional supplement (EPA-ONS) along with 5-weeks radio-chemotherapy to 5-weeks radio-chemotherapy only on survival and quality of life. The results were published elsewhere. This abstract aimed evaluate cost-effectiveness of 5-week EPA ONS usage compared to no nutritional supplement in terms of survival. RESULTS: A total 80 colorectal carcinoma patients had been randomized to 5-week radio-chemotherapy (FU:FU:EBRT)-EPA ONS (2 package per day) or radio-chemotherapy (FU:EBRT) only equally by stratifying age, gender, nutritional status and radiotherapy method. In study time horizon, survival was evaluated by Kaplan Meier estimator and exponential parametric regression model (best fitting model based on AIC-BIC) was used to extrapolate 10-year survival. Since patients’ characteristics, treatment modalities and other procedures were reported to be similar among groups, only cost of EPA ONS was taken into cost-analysis which is prepared from perspective of reimbursement institute in Turkey. RESULTS: Mean (95% confidence interval) survival time was 6.8(3.7-7.3) and 5.5(4.6-6.4) years in EPA-ONS + radio-chemotherapy and radio-chemotherapy only groups, respectively. Five week EPA-ONS costs 224.6 USD per patient. Incremental cost effectiveness ratio (ICER) for in study period was 234.4 USD per life-year gained. CONCLUSIONS: Study survival analysis revealed that preoperative EPA-ONS usage along with radio-chemotherapy prolonged overall survival. EPA-ONS appears to be a cost-effective concomitant treatment of radio-chemotherapy in patient with colorectal carcinoma.

**PCN115**

**PROJECTING THE POTENTIAL PUBLIC HEALTH IMPACT OF A 9-VALENT HPV VACCINE IN JAPAN**

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OBJECTIVES: To estimate the potential public health impact of a 9-valent HPV (human papillomavirus) vaccine (HPV9) in Japan in preventing HPV-related dis-