OBJECTIVES: Standard treatment for localized prostate cancer is radical prostatectomy (RT) which frequently cause erectile dysfunction (ED) and incontinence (IC). As tumor progression often is slow, active surveillance (AS) has been proposed as an alternative treatment strategy. This study compares the cost-effectiveness of the three treatment strategies in a German context.

METHODOLOGY: Based on claims data of a German sickness fund we analyzed men diagnosed with prostate cancer (ICD-10 code C61) in 2008. Life-year gained and complication rates of ED and IC as well as costs of inpatient and outpatient treatment were taken from clinical trial results. Exemplary, medical aids and co-payments were tracked for 2.5 years after the initial treatment. An excess-cost analysis was applied. Strategies were compared in an age-matched and comorbidity-adjusted approach. RESULTS: The baseline study sample included 25,376 individuals. Exclusion of metastases, other cancer diseases and treatment strategies resulted in 910 men with PE, 292 with RT and 124 with AS. After matching 107 men remained in the AS group and 214 each in the PE and RT groups with a maximum balance of 0.02 for the difference in risk of long-term ED, 0.05 for 1056C and IC (PE: 0.313, RT: 0.009, AS: 0.084) was highest in the PE group. Compared to RT and AS, PE was associated with more life years gained during the course of the study. Due to high inpatient costs of the initial surgery PE had ca. €11,000 higher total medical costs compared to RT and AS. CONCLUSIONS: The analysis indicates that PE is associated with better prognosis and higher overall costs compared to RT and AS. 2.5 years follow-up might, however, not be enough to detect prostate cancer-specific deaths.

PCN130
CRITICAL REVIEW OF COST-EFFECTIVENESS ANALYSES (CEA) OF PREVENTION STRATEGIES AGAINST DISEASES ASSOCIATED WITH HUMAN PAPILLOMAVIRUS (HPV) INFECTION
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OBJECTIVES: It is estimated that almost all cervical cancers are associated with HPV infection. In most industrialised countries, cervical screening and vaccination with quadrivalent or bivalent vaccines are recommended to prevent the disease. The current study aimed to critically review the results of CEAs that have assessed the trade-off between screening and vaccination. METHODS: A systematic literature review was conducted in order to explore the cost-effectiveness of HPV vaccination and screening with different strategies across territories within the geographical context of Western Europe, North America and Australia. Modelling approach, disease considered, vaccination/screening settings and costs were compared. RESULTS: A total of 1,188 citations were identified and 20 studies were included in the review. Heterogeneity was seen across studies in terms of modelling approach, disease and prevention strategies considered. Inclusion of more HPV-related diseases significantly improves cost-effectiveness. The screening and, vaccination strategy were found to be cost-effective when compared to vaccination or screening alone. In terms of screening strategy, HPV DNA testing with cytological triage showed a trend to be the optimal strategy in vaccinated girls. However the gain in benefits reduced as the vaccination coverage rate increased. Lastly, vaccine price seemed to affect the incremental cost-effectiveness ratio proportionally.

PCN131
The baseline study sample included 25,376 individuals. Exclusion of metastases, other cancer diseases and treatment strategies resulted in 910 men with PE, 292 with RT and 124 with AS. After matching 107 men remained in the AS group and 214 each in the PE and RT groups with a maximum balance of 0.02 for the difference in risk of long-term ED, 0.05 for 1056C and IC (PE: 0.313, RT: 0.009, AS: 0.084) was highest in the PE group. Compared to RT and AS, PE was associated with more life years gained during the course of the study. Due to high inpatient costs of the initial surgery PE had ca. €11,000 higher total medical costs compared to RT and AS. CONCLUSIONS: The analysis indicates that PE is associated with better prognosis and higher overall costs compared to RT and AS. 2.5 years follow-up might, however, not be enough to detect prostate cancer-specific deaths.

PCN132
ECONOMIC EVALUATION OF VULFESTRANT 500 MG (F500) VERSUS ORIGINAL NONSTEROIDAL AROMATASE INHIBITORS IN PATIENT WITH ADVANCED BREAST CANCER IN RUSSIA (A LINE THERAPY)
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OBJECTIVES: To conduct a pharmacoeconomic evaluation of the application of fulvestrant compared with doctaxel and paclitaxel in the treatment of metastatic breast cancer in second-line chemotherapy. METHODS: Literature review of clinical effectiveness and safety of use of fulvestrant was conducted. Assess of the quality of research and level of evidence obtained in these results was performed. Direct medical costs consisted of the cost of the drug, the cost of patient management and correction of side effects. Duration of therapy, its effectiveness and side effects were obtained from relevant studies on clinical effectiveness (CONFIRM, 2013, S. Jones et al. 2005). The cost of certain hematologic side effects have been taken from the study (Ven), which compares favorably against accepted ICERs in the orphan drugs field. In the multivariate sensitivity analysis, the model was mainly sensitive to the costs of bortezomib, AutoSCT and alloSCT. CONCLUSIONS: The use of F500 is more effective than LET2.5 and EXE25, and less costly than letrozole 5mg (LET2.5) and exemestane 25mg (EXE25) and exemestane 25mg + 10mg (EXE25+EVE10). METHODS: The data on efficacy and safety of 2-line hormonal therapy of breast cancer were derived from a network meta-analysis and clinical data publication for overall survival (OS), progression free survival (PFS) and serious adverse events (SAE). We considered the direct costs on second and third line hormonal therapy and resource utilization. Data on resource usage, were based on expert opinion and open sources. 1-way sensitivity analyses were conducted. RESULTS: In terms of OS F500 (mean 23.33 months) was as effective as ANAS1 (22.12) and more effective than LET2.5 (17.44) and EXE25 (18.31). The highest incremental cost-effectiveness ratio (ICER) estimated for F500 versus ANAS1 was 4,671 per QALY gained, with a 95% credible interval of 3.21 month. The lowest ICER estimated for F500 versus LET2.5 was 22,873 USD per year with incremental effectiveness 5.90 month. The ICER for F500 versus EXE25 was 25,890 USD per year. The estimates of QALYs of F500 versus EXE25 were slightly higher than those of F500 versus ANAS1, and at least as efficacious as ANAS1 in terms of OS among postmenopausal women with advanced breast cancer after failure on 1-line endocrine therapy. In terms of F500 less efficacious than EXE25+EVE10, however, it was substantially cheaper. From a perspective of federal health care system, the cost of LY for F500 is less than the willingness to pay threshold.

PCN134
WILL GOVERNMENTS BE ABLE TO AFFORD A CANCER CURE UNDER CURRENT HEALTH ECONOMIC EVALUATION METHODS?
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OBJECTIVES: Cancer accounts for around 1.3 million deaths and £5 billion in health care expenditure in the European Union. Balancing increasing treatment costs and prevalence will be increasingly difficult for governments to manage. Advances in immunotherapies provide hope for a cancer cure, however its cost might be out of reach for governments under current health economic evaluation methods (CEM). This research aims to determine the potential cost of a cancer cure that would be within an acceptable cost effectiveness threshold. This cost was then modified to take into account the quality of life (QoL) of the general population, QALY discounting, cancer demographics, and other demographics. YLL due to disability in cancer were not included in the calculation. RESULTS: It is estimated that 32.4% of the total YLL per year in the UK (5,615,310) are a consequence of cancer. The cost of saving these YLL at £20,000 per QALY was estimated to be around £12 billion for all cancers per year, meaning an extra £425 in taxes would have to be generated due to lack of data.
from each taxpayer. CONCLUSIONS: A cancer cure evaluated under current health economic evaluation methods would cause a budgetary impact that would be unaffordable for governments due to the high prices that could be achieved while remaining cost effective. Although these types of technologies therapies are not currently available, payers might want to explore new methods of evaluation to determine the value of.\[1\]

PCN135 ECONOMIC IMPACT OF THE INCLUSION OF PERTUZUMAB FOR THE TREATMENT OF METASTATIC BREAST CANCER HER2 2
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OBJECTIVES: To analyze the economic impact of the incorporation of pertuzumab for the treatment of metastatic breast cancer HER2+ in a University Hospital according to real data of our patients.
METHODS: Cross-sectional study where the patients with metastatic breast cancer and HER2+ were retrospectively included. The time horizon was one year and the perspective of medical leadership of the hospital was used. RESULTS: During the study period 371 patients were treated for breast cancer and 75 patients (20.2%) were HER2+. The mean weight of 71.5 kg (SD = 17.1) and men BMI of 29.3 were obtained. The annual cost of docetaxel + trastuzumab + pertuzumab was 69,245.32 + 29,837.47 € (CI in the docetaxel + trastuzumab treatment group. The cost per PFS in year was 44,964 € (CI 33,101, 56,827) in the docetaxel + trastuzumab + pertuzumab group. The incremental cost effectiveness ratio (ICER) was 15.127 €/PFS per year. CONCLUSIONS: The addition of pertuzumab to treatment with docetaxel + trastuzumab for metastatic breast cancer has a high incremental cost in SL. However, the economic impact of this new drug requires careful selection of patients who could benefit. Health Authority will need to consider whether pertuzumab is cost-effective in terms of their willingness to pay.

PCN136 COST EFFECTIVENESS OF SUNITINIB AS FIRST-LINE TARGETED THERAPY FOR METASTATIC RENAL CELL CARCINOMA IN CHINA
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OBJECTIVES: Multitargeted receptor tyrosine kinase inhibitors are more effective alternatives to interferon-α and monoclonal antibodies in patients with metastatic renal cell cancer (mRCC). However, the oncologist and humanistic outcomes associated with these treatments are sparse in the Chinese setting. This study evaluated the clinical and economic consequences of sunitinib vs docetaxel and interferon-α (IFN-α) as first-line targeted therapy for mRCC patients in China.
METHODS: A state-transition Markov cohort model was developed to evaluate the clinical and economic consequences associated with these treatments on life quality (following SMC criteria) which raises the value of such intervention.

PCN137 AN EVIDENCE-BASED MODEL DESIGN TO INFORM THE COST-EFFECTIVENESS EVALUATION OF PRIMARY ENDORCINE THERAPY AND SURGERY FOR OLDER WOMEN WITH PRIMARY BREAST CANCER
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OBJECTIVES: Despite the lack of evidence-based information on their clinical and cost-effectiveness, surgery and primary endocrine therapy (PET) are the most commonly used initial treatment strategies for older women with primary breast cancer in the United Kingdom (UK). To evaluate the cost-effectiveness of PET and surgery, a decision analytical modelling is necessary. This systematic review aimed to summarize the modelling methodologies from the literature to inform the model design in older women. METHODS: An electronic data search was conducted using NHS Economic Evaluation Database, Cochrane Library, Ovid Medline, PubMed, and EMBASE to identify full economic evaluations that compared different treatment strategies in metastases surgery with women primary breast cancer. Quality and modelling methodologies of included studies were assessed and summarised. RESULTS: All the 31 included studies assessed surgery and none assessed PET as the initial treatment. Most included economic studies conducted using Markov model and calculated costs and QALYs based on quality adjusted lifetimes rather than years or increasing discount rates on QALYs for immuno-therapies.