OBJECTIVES: Standard treatment for localized prostate cancer is radical prosta-
tectomy (RT) which frequently cause erectile dysfunction (ED) and incontinence (IC). As tumor progression often is slow, active surveil-
lanse (AS) has been proposed as an alternative treatment strategy. This study
compares the cost-effectiveness of the three treatment strategies in a German
country setting and is based on claims data of a German sickness fund we anal-
ysis patients treated for prostate cancer (ICD-10 code C61) in 2008. Life
years gained and complication rates of ED and IC as well as costs of inpatient and
outpatient treatment, pharmaceuticals, physical therapy, 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 comor-
bidity-adjusted approach. RESULTS: The baseline study sample included 25,376
individuals. Each treatment group of metastases, other cancer diagnoses and
other cancer diagnoses 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
cost-effectiveness threshold of £20,000 per QALY gained and £30,000 per QALY gained.
A three state Markov model was developed. Brentuximab vedotin is a cost-
effective alternative for both countries, especially in the space of orphan drugs.
The low costs of AutoSCT and AlloSCT in Venezuela relative to its GDP were what
made it acceptable for higher prices in chemotherapy usage and costs did not alter the model. As a limitation, local epidemiology was not accounted for
due to lack of data.

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 all cervical cancers are associated with
HPV infection. In most industrialised countries, cervical screening and vaccina-
tion are key strategies to prevent and control the disease. The current study aimed to critically review the results of CEA that have
assessed the trade-off between vaccina-
tion alone and the combined use of vaccina-
tion and cervical screening. METHODS: A systematic
literature review was conducted in order to explore the cost-effectiveness of
HPV prevention strategies with or without vaccination. The following search
strategy was used: randomised controlled trials (RCTs) and/or cohort studies 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.
Conclusion: Vaccination, combined with cervical screening, is cost-
effective when compared to vaccination 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 interval between screenings is reduced. Delaying the starting age of screening
could be cost saving, with a limited increase in risk of cancer. An increasing vac-
cine valence seemed to counterbalance the detrimental effect of deferred/less frequent screening. While the total costs of cervical disease prevention/management
may be maintained or decreased. Lastly, vaccine price seemed to affect the incre-
dental costs on compared regimens was conducted cost - effectiveness
and safety of use of fulvestrant was conducted. Assess of the quality

OBJECTIVES: To conduct a pharmacoeconomic evaluation of the application of ful-
vestrant compared with docetaxel and paclitaxel in the treatment of metastatic
of docetaxel and paclitaxel.

To conduct a pharmacoeconomic evaluation of the use of fulv-

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RESULTS: For the base case scenario of both the countries the ICERS (USD/LYG) were respectively $38,614.34 (Mex) and $57,854.07 (Ven), which compares favorably against accepted ICERs in the orphan drugs field. In the univariate sensitivity analysis, the model was mainly sensitive to the costs of brentuximab, AutoSCT and AlloSCT. CONCLUSIONS: Brentuximab vedotin is a
cost-effective alternative for both countries, especially in the space of orphan drugs.
The low costs of AutoSCT and AlloSCT in Venezuela relative to its GDP were what
made it acceptable for higher prices in chemotherapy usage and costs did not alter the model. As a limitation, local epidemiology was not accounted for
due to lack of data.

PCN131
ECONOMIC EVALUATION OF FULVUSTRANT 500MG (F500) VERSUS ORIGINAL NONSTEROIDAL ANTAGONIST INHIBITORS IN PATIENTS WITH ADVANCED BREAST CANCER (IN A LINE THERAPY)

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OBJECTIVES: To perform cost-effectiveness analysis fulvestrant 500mg (F500)
for the treatment of first progression or recurrence of advanced breast cancer
in postmenopausal patients compared with anastrozole 1mg (ANA51), letrozole 5 mg (LE50) and exemestane 25mg (EXE25). and exemestane 10mg (EXE25+EVE10). METHODS: The data on efficacy and safety of 2-line hor-
monal 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 effec-
tive as ANAS1 (22.12) and more effective than LET2.5 (17.44) and EXE25 (18.31). The high-
est incremental cost-effectiveness ratio (ICER) estimated for F500 versus ANAS1
was £29,430 per year with incremental effectiveness 1.21 month. The low ICER estimated for F500 versus LET2.5 was £22,873 USD per year with incremen-
tal effectiveness 5.90 month. The ICER for F500 versus EXE25 was £25,890 USD for
2.5 years follow-up. In terms of PFS EXE25+EVE10 was more effective and costly than F500. The ICER for F500 was £1,714 USD per year versus £4,215 USD for EXE25+EVE10. A series of one-way sensitivity analyses showed this result is robust to variations in
costs of drugs, physician examination, and variation in costs associated with
SAE. CONCLUSIONS: the ICER for F500 is lower than £20,000 per QALY, 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
PFS F500 is less efficacious than EXE25+EVE10, however substantially cheaper.
From the perspective of federal health care system, the cost of FLY 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 £50 billion in
health care expenditure in the European Union. Balancing increasing treatment
costs and prevalence will be increasingly difficult for government finances.
Advances in immunotherapies provide hope for a cancer cure; however its cost
might be out of reach for governments under current health economic evalua-
tion methods. Objectives of this research were to: 1) Estimate the costs and 
life lost (YLL) in the UK due to cancer were obtained from the Institute of Health
Metrics and Evaluation (IHME) database and multiplied by the NICE cost
effectiveness threshold of £20,000 per QALY gained and £30,000 per QALY gained.
An estimate of 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 incidence, prevalence, 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 sav-
ing these YLL at £20,000 per QALY was estimated to be £13.2 billion for all cancer
cancers per year, meaning an extra £425 in taxes would have to be generated

PCN132
COST-EFFECTIVENESS EVALUATION OF BRENTUXIMAB VEDOTIN FOR REFRACTORY/REFRACTED HODGKIN LYMPHOMA: A COMPARATIVE ANALYSIS OF THE RESULTS OF MEXICO AND VENEZUELA

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OBJECTIVES: Brentuximab vedotin is an orphan drug currently indicated for treat-
ment of patients with refractory/refracted Hodgkin lymphoma CD30+ following
prior Auto Stem Cell Transplant (ASCT) or following two prior chemotherapy regi-
mens. This is a group of patients with a reported median survival of 12 months,
with no defined standard of care and for whom clinical trials are single armed
due to lack of appropriate comparators and scarcity of patients. Hence, an indirect
comparison was performed to determine the cost-effectiveness of brentuximab
vedotin in different countries. METHODS: A three state Markov model was devel-
oped. Effectiveness of brentuximab vedotin was obtained from the clinical trial of
Copossi, a risk of long-term death (0.546) and IC (PE: 0.313, RT: 0.009, AS: 0.084) was highest in the RT 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. £14,000 higher total per capita costs than 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.

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RESULTS: The baseline study sample included 25,376
individuals. Each treatment group of metastases, other cancer diagnoses and
other cancer diagnoses 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
cost-effectiveness threshold of £20,000 per QALY gained and £30,000 per QALY gained.
A three state Markov model was developed. Brentuximab vedotin is a

from each taxpayer. CONCLUSIONS: A cancer cure evaluated under current health economic evaluation methods would cause a burden 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, patients might wait to explore new methods of evaluation. It is in this context that the model building and calculation of quality-adjusted lifetimes rather than years or increasing discount rates on QALYs is important.

PCN135 ECONOMIC IMPACT OF THE INCLUSION OF PERTUZUMAB FOR THE TREATMENT OF METASTATIC BREAST CANCER HER2+ 2,3,4,5,6
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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 breast cancer have been included. The time horizon was one year and the perspective of the hospital financial 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 €93,203.43 vs. €29,837.47 per patient (CI in the docetaxel + trastuzumab treatment group). The cost per QALY per year was €44,964.64 vs. €29,837.47 per year. Conclusions: The ICER analysis shows Trastuzumab + pertuzumab to be the dominant option in the treatment of patients with breast cancer and thus an increase in SLP. However, the economic impact of this new drug, requires careful selection of patients who could benefit. Health Authority will have 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 carcinoma (mRCC). However, economic and humanistic outcomes associated with these treatments are sparse in the Chinese setting. This study evaluated the clinical and economic consequences of sunitinib compared with interferon-α and interferon-α combined with interferon-α in the third-party payer perspective in China. METHODS: A Markov model was developed to simulate disease progression and determine cost and outcomes over patient’s lifetime. The time horizon of analysis was a lifetime with a maximum of five years, and the model cycle length was 12 weeks. The model was used to conduct a cost-utility analysis on sunitinib compared to interferon-α and sorafenib. Costs of physician, anti-cancer medications, hospitalization, laboratory, and palliative care were estimated. Outcomes were measured in quality-adjusted life years (QALYs). RESULTS: This study evaluated the clinical and economic consequences of sunitinib compared with interferon-α and interferon-α combined with interferon-α in the third-party payer perspective in China.

PCN137 AN EVIDENCE-BASED MODEL DESIGN TO INFORM THE COST-EFFECTIVENESS EVALUATION OF PRIMARY ENDODERMIC 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 endodermic 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 surgery and PET, a decision-analytical modelling is necessary. This systematic review aimed to summarise the modelling methodologies from the literature to inform the model design in older women. METHODS: An electronic database search was conducted using NHS Economic Evaluation Database, Cochran Library, Ovid Medline, PubMed, and EMBASE to identify full economic evaluations that compared different treatment strategies in postmenopausal women with primary breast cancer. Quality and modelling methodologies of included studies were assessed and summarised. RESULTS: All the 31 included studies assessed surgery and one assessed PET as the initial treatment. Most included economic studies were conducted in the United Kingdom. Nine studies which included subgroup analysis for older women (over 65 years old) used similar economic models and transition states with younger women (50 to 65 years old). The key disease-related health states were disease-free, recurrence, and death. Recurrence was mostly separated into loco-regional and distant recurrence. CONCLUSIONS: This systematic review can inform the design of an economic model comparing PET with surgery as initial treatment in older women based on the following assumptions: (1) health states are applicable across age groups; (2) transition states for modelling surgery in the literature are transferable to model the same treatment for older women; (3) metastasis transition states include progression, progression and death, can be used to model the PET pathway. Future study will validate this model by using a longitudinal dataset of older women with primary breast cancer, and synthesize data from different data sources to populate this economic model.

PCN138 COST EFFECTIVENESS OF CETUXIMAB IN 1ST-LINE TREATMENT OF RAS WILD-TYPE METASTATIC COLORECTAL CANCER IN SCOTLAND: A SUMMARY OF THE SUBMISSION TO THE SCOTTISH MEDICINES CONSORTIUM
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OBJECTIVES: Colorectal cancer is the third most common cancer in Scotland, with nearly 4,000 cases reported in 2011 and 5.2% increase in incidence in the previous 10 years. The 5-year survival rate of patients with metastatic colorectal cancer (mCRC) patients with wild-type (wt) RAS (KRAS and NRAS exons 2,3, 4) expressing tumours is likely to have enhanced response to anti-EGFR treatment compared to patients with RAS mutations. RAS biomarker testing in the cetuximab (CEA) and the infliximab (FOLFOX) treatment group is likely to benefit the most from anti-EGFR treatment such as cetuximab and therefore allow more efficient use of NHS Scotland resources. A New Product Assessment Form was submitted to the Scottish Medicines Consortium with the view of improved healthcare outcomes for patients with mCRC patients (versus KRAS wt) treated with cetuximab in combination with chemotherapy and its cost effectiveness compared to currently available treatments. METHODS: A state-transition Markov cohort model was developed to estimate endpoints and costs for first and subsequent lines of treatment including the long-term survival after a successful curative resection of liver metastasis. RESULTS: The model estimated an incremental 0.28 life-years gained (LYG) with cetuximab + FOLFIRI compared to FOLFOX alone and an incremental 0.32 LYG with cetuximab + FOLFOX compared to FOLFOX alone. The model was most sensitive to length of treatment with cetuximab. CONCLUSIONS: The incremental cost effectiveness ratios imputed in the model are close to the traditional willingness to pay threshold adopted by the SMC. This analysis demonstrates that cetuximab in combination with FOLFI or FOLFOX in mCRC RAS wt patients is a cost effective treatment compared with chemotherapy alone, specifically when taken into consideration that cetuximab qualitatively changes the clinical outcomes studies on life medicine (following SMC criteria) which raises the value of such intervention.

PCN140 COST-EFFECTIVENESS ANALYSIS OF BEVACIZUMAB, FOTEMUSTINE AND EXTENDED-DOSE TEMOZOLOMIDE IN PATIENTS WITH RECURRENT GBM IN SPAIN
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The treatment of glioblastoma after first-line treatment progression is not clearly established in Spain. Most accepted alternatives are nitrosoureas (fotemustine, F), extended-dose temozolomide (e7T) or bevacizumab (B). Without clear standards of care, increased clinical and health policy uncertainty among decision makers should be clarified. So, economic evidence might reduce those uncertainties. OBJECTIVES: To analyze the cost-effectiveness of bevacizumab, extended-dose temozolomide and fotemustine in patients with either recurrent or progressive glioblastoma after standard therapy, compared to standard clinical practice (SCP). METHODS: A cost-effectiveness markov model was conducted from a payer perspective (time horizon 1 year, 3%, discount rate, 2012, €). Our model got three health states: alive without progression, alive with toxicity and progression as absorbing state. We subsequently assessed and summarised. RESULTS: The incremental cost effectiveness ratios were 7.574.4 12/year to obtain 6m PFS. Toxicity data was based on relevant phase II studies. Health state utility values were estimated based on published values from a HTA report by Garzide et al. 2007. Costs were obtained from a Spanish University Hospital. RESULTS: Cost/effectiveness ratios were: SCP (based on fotemustine) 3,208/4.5/year to obtain 6m PFS with 6mm FAS 1,312/7.9/year to obtain 6m PFS with fotemustine + bevacizumab. CONCLUSIONS: ICER analysis shows fotemustine to be the dominant option in the treatment of patients with recurrent or progressive glioblastoma.

PCN141 PHARMACOECONOMIC ANALYSIS OF AXITINIB AS SECOND-LINE TREATMENT FOR METASTATIC RENAL CELL CARCINOMA
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OBJECTIVES: To evaluate the cost-effectiveness of axitinib compared with sorafenib based on the threshold recommended by the NHS Economic Evaluation Database, Cochrane Library. Ovid