direct cell death compared with rituximab (Rtx) and is pending regulatory approval (in combination with chlorambucil (Clb)) for the treatment of patients with previously untreated chronic lymphocytic leukemia (CLL). Obinutuzumab+Clb has shown >85% reduction in the risk of progression, relapse or death in comparison to treatment with Clb alone (HR 0.14), a broadly accepted treatment option for many patients with co-existing medical conditions. In a majority of markets the health economic consequences will be assessed in terms of affordability. **METHODS:** A health economic model was developed analyzing the cost impact of obinutuzumab on further lines of treatment due to the number of reduced refractory patients compared to Clb and Rtx. Market share information for obinutuzumab, ofatumumab, Rtx, Clb and Bendamustine and the different relevant combinations were entered for Germany and Canada (Ontario province only). **RESULTS:** Based on a 39% reduction in numbers of refractory patients treated with obinutuzumab+Clb compared to Rtx+Clb cost savings per year per patient (PYPP) for further line treatments in Canada (Ontario) range between Ca$950 and Ca$3,091, which leads to maximum cost savings for the whole eligible population (401 patients) up to $Ca1,239,491. In Germany the cost savings range PYPP between €2,556 and €8,318, which leads to maximum cost savings for the whole eligible population (1,302 patients) up to €10,830,036. The big difference in the cost savings PYPP between the two countries is mainly due to the different market share assumptions for ofatumumab. Key cost drivers were treatment duration and price/cost of further line treatments. Scenario analyses on cost, efficacy and market share data confirmed these findings. **CONCLUSIONS:** Obinutuzumab+Clb shows significant patient-relevant clinical benefits and potential cost savings in further line treatments in patients with previously untreated CLL.

PCN51

PHARMACOECONOMIC ASPECTS OF CHRONIC PAIN MANAGEMENT IN RUSSIAN CANCER PATIENTS

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OBJECTIVES: To assess the cost-effectiveness of the new transdermal therapeutic system (TTS) of fentanyl and subcutaneous injections (SIs) of morphine hydrochloride in the treatment of chronic pain and predict potential budget impact of the implementation of fentanyl TTS in routine clinical practice. **METHODS:** The pharmacoeconomic model was developed based on the results of Russian observational study, included 45 patients with terminal cancer: 25 patients received fentanyl TTS and 20 – SIs of morphine. At the first stage, the cost-effectiveness ratios (CERs) of therapies during the first month was measured as total costs of medicines and expenses for ambulance services for acute pain relief per one patient without side-effects. At the second stage, the CERs of therapies during subsequent three months was measured as costs of medicines per one unit of pain intensity (PI) reduction (visual pain scale). **RESULTS:** During the first month of therapy the frequency of ambulance use was significantly lower in patients received fentanyl TTS (0.32 vs 1.05 per one patient per week in the morphine group), this was reflected in lower total costs (12 611, 42 RUB and 23,037.54 RUB per one patient, respectively). Patients in the fentanyl TTS group were less likely to have side effects. The estimated CERs for fentanyl TTS and SIs of morphine were 13,001.46 RUB and 27,756.07 RUB per one patient without vomiting and 23,354.47 RUB and 82,276.93 RUB per one patient without constipation, respectively. Long-term treatment with fentanyl TTS was resulted in decreased PI as compared to SIs of morphine. The three-month CERs were 4,897.05 RUB and 7,869.30 RUB per one unit of PI reduction, respectively. **CONCLUSIONS:** The present study has demonstrated that administration of new transdermal therapeutic system of fentanyl has the better cost-effectiveness profile in the treatment of Russian cancer patients.

PCN52

BUDGET IMPACT OF LIPEGFILGRASTIM FOR THE MANAGEMENT OF CHEMOTHERAPY-INDUCED NEUTROPENIA

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OBJECTIVES: Chemotherapy-induced neutropenia (CIN), a commonly-occurring adverse event in cancer patients undergoing chemotherapy, and particularly febrile neutropenia (FN), have potentially life-threatening and costly consequences. The standard of care for patients at risk of FN comprises prophylactic administration of recombinant granulocyte colony-stimulating factor (G-CSF) with pegfilgrastim, a long-acting formulation of G-CSF, and the most widely used in Europe. Lipegfilgrastim is a novel, pegylated and glycosylated long-acting G-CSF designed for use in the same patient population as pegfilgrastim. We developed a model to estimate the economic impact over five years of managing G-CSF-eligible chemotherapy patients at risk of FN with lipegfilgrastim rather than pegfilgrastim in Scotland. **METHODS:** The eligible patient population was estimated based on cancer incidence in Scotland and current uptake of G-CSF by patients initiating chemotherapy to prevent neutropenia. Drug, monitoring and event costs were taken from the British National Formulary, Unit Costs of Health and Social Care and Scottish National Tariff. As lipegfilgrastim was shown to be non-inferior to pegfilgrastim (in a phase III study in breast cancer patients), the efficacy and safety of pegfilgrastim and lipegfilgrastim were assumed to be identical. Non-statistically significant trends towards fewer neutropenic events and dose modifications with lipegfilgrastim were explored in scenario analyses. **RESULTS:** The model estimated that 315 patients currently receive pegfilgrastim annually. A progressive increase in lipegfilgrastim uptake was associated with cost savings ranging from £2,814 in year 1 to £16,883 in year 5, totalling £61,904 over five years. Savings were attributable to the low drug acquisition cost of lipegfilgrastim. Using event rates from the pivotal phase III breast cancer study, scenario analyses suggested that using lipegfilgrastim instead of pegfilgrastim generated savings of £145,312, avoided 81 neutropenic events (including 11 occurrences of FN) and 50 dose modifications, and caused 34 additional treatment-emergent adverse events. **CONCLUSIONS:** Lipegfilgrastim was cost-saving compared with pegfilgrastim.

PCN54

SAFETY PROFILE AND COSTS OF RELATED ADVERSE EVENTS OF TRASTUZUMAB EMTANSINE COMPARED TO OTHER REGIMENS IN THE CANADIAN HEALTH CARE SYSTEM

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OBJECTIVES: Trastuzumab emtansine (T-DM1) is an antibody–drug conjugate comprised of the microtubule inhibitory cytotoxic agent DM1 and trastuzumab which, in addition to its antitumor properties, targets T-DM1 to HER2–overexpressing cells. The overall safety profile of T-DM1 was investigated in the phase III EMILIA trial (comparing T-DM1 [n=496] to capecitabine plus lapatinib [CAP+LAP, n=495]) in patients with HER2-positive locally advanced or metastatic breast cancer (MBC) previously treated with trastuzumab and a taxane, and the phase II TDM4450g trial (comparing T-DM1 [n=67] to trastuzumab plus docetaxel [TRAZ+DOCE, n=70]) in patients with previously untreated MBC. Both trials demonstrated clinically meaningful differences between T-DM1 and its comparators. The objectives were to estimate and compare the Canadian costs of managing the treatment-related adverse events (AEs) of T-DM1 as reported in the two trials, from the perspective of Canadian public payers. **METHODS:** An Excel based spreadsheet model was utilized for the analysis. Costing information was obtained from the literature, clinical experts, and Canadian standard costing sources. Costs were reported as 2012 CAD. The AEs that were considered were all treatment-related grade ≥3 AEs as well as grade 2 AEs that occurred in ≥5% of patients in both arms of either study. **RESULTS:** The management of treatment-related AEs as reported in the EMILIA trial resulted in higher per patient costs ranging from $3,060 - $10,499 for CAP+LAP versus $1,376 - $2,463 for T-DM1, yielding savings of $1,684-$8,036. In the TDM4450g trial, the management of treatment-related AEs resulted in higher per patient costs ranging from $5,124 - $27,617 for TRAZ+DOCE versus $798 - $2,215 for T-DM1, yielding savings of $4,326-$25,402. **CONCLUSIONS:** This analysis demonstrated that utilizing T-DM1 for the management of HER2-positive metastatic breast cancer results in significant cost savings of related AEs management due to the improved safety profile compared to CAP+LAP and TRAZ+DOCE.

PCN55

A COST-ANALYSIS OF STEREOTACTIC RADIOTHERAPY IN LUNG CANCER

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OBJECTIVES: Stereotactic radiation therapy is an innovative technique with high therapeutic potential due to excellent local control and increased survival rate. A cost analysis investigating stereotactic radiation therapy modalities either with linear accelerator (Cone Beam Computed Tomography (CBCT), Exac-trac) or Cyberknife was conducted. **METHODS:** The cost-analysis was performed prospectively based on a multicenter study. Patients included were treated for lung carcinoma (T1-T2, N0, M0). Cost calculations were strictly based on a micro costing approach according to the hospitals' point of view. Only direct costs were taken into account. Productivity losses of personnel involved in the process, costs of administrative personnel, costs of logistics and general management were not taken into account. Time horizon included radiation therapy (preparation for radiation therapy and the fraction itself). All costs were given in 2011 euros. Uncertainty was captured by one-way and probabilistic sensitivity analyses using a non-parametric bootstrap method. **RESULTS:** 113 patients were enrolled in 11 French centers from April 2009 to December 2011. 98 economic questionnaires were exploitable. The costs of preparation for stereotactic radiation therapy were 430€ (SD: 101€) with Cyberknife and 433€ (SD: 199€) with linear accelerator. When required, costs of implementation of fiducial markers with one/two days of inpatient care were 1,619€. The costs of stereotactic radiation therapy (all fractions included) were 1,811€ (SD: 760€) with Cyberknife and 817€ (SD:403€) with linear accelerator. Costs per fraction were 550€ (SD: 224€) with Cyberknife and 201€ (SD: 97€) with linear accelerator. Depreciation periods of the accelerator played a major role in costs. **CONCLUSIONS:** This is to our knowledge the first study highlighting costs incurred by different stereotactic radiation therapy modalities in lung cancers. Cost-effectiveness studies have to be conducted in order to shed further light on which modality to focus on.

PCN56

COST OF ADVERSE EVENTS DURING TREATMENT WITH EVEROLIMUS PLUS EXEMESTANE OR SINGLE-AGENT CHEMOTHERAPY IN PATIENTS WITH ADVANCED BREAST CANCER

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OBJECTIVES: Everolimus plus exemestane (EVE+EXE) recently received approval for the treatment of patients with HR+/HER2- advanced breast cancer that recurs or progresses during/after non-steroidal aromatase inhibitors. This study was designed to evaluate the expected costs of managing adverse events during EVE+EXE therapy and single-agent chemotherapy in the western European region. **METHODS:** An economic model was developed to estimate per-patient cost of managing adverse events for patients receiving EVE+EXE or chemotherapies. Adverse event rates for EVE+EXE were collected from the phase III BOLERO-2 trial. Adverse event rates for capecitabine, docetaxel, and doxorubicin chemotherapies were collected from published clinical trial data. Grade 3/4 adverse events with at least 2% prevalence during any of these treatments were included in the study. The adverse event rate