Health Care System (SUS) perspective. We also studied the value of dasatinib versus nilotinib. **METHODS:** A cost-utility lifetime Markov model was developed to calculate the incremental cost per Quality-Adjusted Life Year (QALY). Disease progression depended on the best treatment response rates taken from dasatinib clinical trials. Transition probabilities and utilities were estimated from published literature. Drugs costs were obtained according to official prices and standard government discounting procedures. Since nilotinib does not have a published price in Brazil, the lowest international price found on the internet was used. Resource utilization was based on clinical survey. Both costs and effects were discounted annually at 5.0%. The robustness of the results was assessed through deterministic and probabilistic sensitivity analysis. **RESULTS:** In the base case, lifetime treatment resulted in dominance of dasatinib in CP versus both imatinib >400 mg and nilotinib, and an incremental cost-effectiveness ratio (ICER) of about €52,000/QALY for AP and approximately €51,000/QALY for BP against imatinib. Sensitivity analysis showed pharmaceutical costs as the most important driver of the result. **CONCLUSIONS:** Compared to imatinib >400 mg and nilotinib, dasatinib is associated with increased QALYs in all phases and lower overall costs in CP. So dasatinib is the dominant strategy for the treatment of chronic phase CML patients who are resistant to imatinib. Since clinical outcomes for imatinib 800 mg for advanced phases are unsatisfactory, dasatinib 140 mg is a reasonable option for imatinib-resistant CML patients in accelerated and blast phases.

PCN125

AN ECONOMICAL, RANDOMIZED, MULTICENTER PHASE III TRIAL OF SECOND LINE TREATMENT FOR NON SMALL CELL LUNG CANCER (NSCLC) COMPARING DOCETAXEL VERSUS PEMETREXED: GFPC (GROUPE FRANçAIS DE PNEUMO-CANCéROLOGIE) 05–06 STUDY

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OBJECTIVES: The costs of second line treatment for non small cell lung cancer (NSCLC) has dramatically increased during the last decade. The objective of this phase III, randomized, multicenter study was to compare from the payer's perspective the economical impact of two widely used treatments: pemetrexed versus docetaxel. **METHODS:** This study included progressive NSCLC: docetaxel 75 mg/m^2 (arm A) versus pemetrexed 500 mg/m^2 (arm B) every three weeks. The number of subjects was determined to find a second line direct cost difference of 10% between the two arms ($\alpha = 0.05$, $\beta = 0.20$). The analysis recorded: transportation, drug, administration (outpatient or inpatient) and adverse events costs. Average and 95% confidence intervals, cost-differences were calculated by non parametric methods (bootstrap, SAS software). **RESULTS:** 150 patients were enrolled between February 2006 and June 2008. There were no differences between the two arms in terms of sex, age, performans status, weight loss, body surface, history. TTP was 2.8 m [2.26–4.23] for arm A, 2.53 m [2.16–4.00] for arm B ($p = 0.85$). The mean number of cycles was 3.7 (± 1.9) for arm A and 3.6 (± 1.75) for arm B. There were no differences for overall toxicities ($p = 0.55$), and for grade 1–2 toxicities. In the opposite, there was a significantly difference in term of overall grade 3–4 toxicities: 39/75 for arm A (52%) versus 25/75 (33%) for arm B ($p = 0.02$). In terms of chemotherapy costs, arm B was more costly: €777,082.76 versus €513,700.42 (+51%). In terms of global costs, the difference was decreased at +37%. **CONCLUSIONS:** Chemotherapy with pemetrexed was more expansive for 2d line NSCLC treatment. The difference decreased according to adverse events and administration costs. Cost-effectiveness and sensitivity analyses will be presented at the meeting.

PCN126

LOSS OF WORK ACTIVITY AND PRODUCTIVITY IN CAREGIVERS ATTENDING TO PATIENTS WITH ADVANCED RENAL CELL CARCINOMA TREATED WITH TEMSIROLIMUS OR INTERFERON-ALFA: EVALUATIONS FROM A PHASE 3 RANDOMIZED TRAIL

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OBJECTIVES: We analyzed the impact of informal caregiving on caregiver's workplace productivity. Workplace productivity of caregivers attending to patients (pts) with advanced renal cell cancer (advRCC) treated with temsirolimus (TEMSR) was compared with that of caregivers attending to pts treated with interferon-alfa (INFa). In addition, we evaluated the reaction of informal caregiving in both treatment groups. **METHODS:** Data were analyzed from phase 3 trial of pts with untreated, poor-prognosis advRCC. Pts were randomly assigned to 25 mg TEMSR weekly, or INFa (titrated to 18 mU) 3 times weekly. Caregiver work productivity and activity impairment questionnaire (WPAI-CG), as well as a caregiver reaction assessment instrument (RAI), was administered at baseline and at 4-wk intervals until wk-32. Participation for caregiver study was on a voluntary basis. For the current analysis, we evaluated WPAI and RAI at pts' last visits. ANCOVA model was used with baseline WPAI-CG, RAI, and measures of disease severity as covariates. **RESULTS:** Of 416 pts entered in the TEMSR (n = 209) and IFNa (n = 207) arms, data were available for 174 caregivers. About 50% of participating caregivers were employed (55% in TEMSR arm & 45% in INFa arm [p = 0.1724]). Caring for advRCC pts was associated with substantial carer burden; on average, caregivers reported absenteeism of 11 hrs/wk and a 27% reduction in productivity at work. Caregivers caring for TEMSR pts reported significantly lower absenteeism (22% vs. 40%, p = 0.0339), lower overall work productivity loss (34% vs. 49%, p = 0.0178), and lower overall impairment in regular activity (29% vs. 38%, p = 0.0305) than caregivers caring for INFa pts. Based on RAI questionnaire, caregivers of TEMSR pts reported a significantly lower burden on their daily schedule compared with caregivers of INFa pts (14.0 vs. 15.9, p = 0.0043). **CONCLUSIONS:** Although the study had 42% (174/416) caregiver participation rate, TEMSR therapy in advRCC is associated with reductions in caregiver burden.

PCN127

DYNAMIC CONTRAST-ENHANCED ULTRASOUND WITH QUANTIFICATION TO ASSESS TARGETED TREATMENT EFFICACY: RESULTS OF A MULTI-CENTRIC PROSPECTIVE COST STUDY

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OBJECTIVES: The aim was to assess the cost of dynamic contrast -enhanced ultrasound (DCE -US) with quantification of tumor perfusion parameters from raw linear data on a large sample of patients and tumors. **METHODS:** Eighteen French hospitals participated in the study. All consecutive exams performed to assess targeted treatment efficacy were registered. The cost of each DCE -US was computed based on resource use data collected during the study: the duration of each exam, the type of staff and equipment and the amount of US contrast agent. To value resources we used unit costs at the Gustave-Roussy Institute. A sensitivity analysis was conducted. **RESULTS:** A total of 1452 DCE -US were recorded in 367 patients with mainly hepatocellular carcinoma (22%), or metastasis from kidney cancer (33%), colon cancer (12%) or melanoma (10%). Sorafenib, sunitinib and bevacizumab were the three most frequent treatments. The median number of DCE -US per patient was 5. Quantification of perfusion parameters was possible in 881 DCE -US (62%). The mean duration of a DCE -US was 28 minutes. The radiologist's intervention lasted 24 minutes on average. Quantification of the tumor perfusion parameters lasted 17 minutes. The mean cost of a DCE -US was estimated at €173. In the sensitivity analysis, the cost ranged from €152€ to €197. The cost of the baseline DCE -US was 10% higher than subsequent exams. A second bolus injection was required in 1/5 baseline exams to choose a relevant target at treatment initiation. **CONCLUSIONS:** The cost of DCE -US is higher than conventional US mostly because of contrast agent use which accounts for half the cost of the procedure. Despite a 20% rate of re -injections and longer exams at baseline, the cost variability of DCE-US is rather low. This new technique strongly challenges CT perfusion in the monitoring of targeted treatments: it is cheaper and reduces the risk of radiation-related cancers.

PCN128

BREAST CANCER DIAGNOSTIC PROCESS: MANAGEMENT AND COST EVALUATION IN ITALY

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OBJECTIVES: Organizational Analysis and Economic Evaluation of the Diagnostic process for breast cancer in Italian hospitals. **METHODS:** Multicenter, retrospective study involving 21 hospitals. Target population: patients whose diagnostic test results (ecography and/or mammography) and clinical examinations raised suspicion of malignancy and required further tests. Diagnostic procedures analysed: Cytological examination, Core Biopsy (CB), Vacuum-Assisted Breast Biopsy (VABB), on ecographic and stereotactic guide, and Surgical biopsy. Based on the collected information, a diagnosis path was built. Each path's segment included a single procedure or a sequence of tests. Data on proportion of patients submitted to each path were collected from centers enrolled. Resource use data including: time effort, consumables and technological supply. Unit costs were based on hospitals data and official tariffs (National Tariff Nomenclature for specialist services). Direct costs of the diagnostic process were determined from the hospital perspective. Cost of "Diagnostic Uncertainty" was estimated considering further examinations needed. **RESULTS:** Data of 29,457 patients were collected (about 15,000 patients/year). For the 45.8% of patients, radiologists choose the ecoguided cytological examination as first exam; 23.4% of patients with an ecovisible lesion performed a CB ecoguided; the 26.4% with no ecovisible lesion was subjected to a stereotactic VABB. Impact of further exams on the cost of diagnostic process increased the procedural costs by 356% for the ecoguided CB (€83 vs. €378) and the 36% of the stereoguided VABB cases (€683 vs. €1.868). **CONCLUSIONS:** The most used procedures were CB and ecoguided cytological exam for ecovisible lesions and stereoguided VABB for non ecovisible lesions. Diagnostic path cost increased with respect to procedure cost, mostly relevant for CB, due to the use of surgical biopsy. The real economic impact is due, not only in direct costs of the exam itself, but also to those connected to the probability that others have to follow.

PCN129

FACTORS AFFECTING ADMINISTRATION REGIMES AND COSTS ASSOCIATED WITH EIGHT FIRST-LINE CHEMOTHERAPEUTIC DRUGS IN SEVEN COMBINATIONS, IN THE TREATMENT OF MNSCLC

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OBJECTIVES: Chemotherapeutic drugs for mNSCLC patients are tested in "optimal conditions" in randomised control trials at prescribed dosing schedules. In clinical practice however, providers determine dosing schedules according to physician