outcomes following BRCA testing in women with ovarian cancer and their female first-degree relatives. Two strategies are being compared: no testing versus BRCA testing. Estimates of cancer incidence and mortality, uptake and impact of risk-reducing surgery and costs of BRCA testing, cancer treatment and palliative care were based on literature review. Outcomes are expressed as quality-adjusted life years (QALYs). Goal: Sensitivity analyses are conducted for key decision parameters.

**RESULTS:** We first evaluated the cost-effectiveness of genetic testing in relatives of ovarian cancer patients with BRCA mutations. Results showed this was associated with an ICER below the UK cost-effectiveness threshold of £20,000 per QALY gained compared with no testing. Sensitivity analyses showed the results were robust.

**CONCLUSIONS:** We demonstrate that genetic testing in unaffected female first-degree relatives of women with ovarian cancer due to BRCA mutations is cost-effective. The final results will consider the cost-effectiveness of offering BRCA testing to all eligible ovarian cancer cases and their unaffected female first-degree relatives.

**PCN169 BURDEN OF RENAL IMPAIRMENT: RELATIVE HEALTH CARE RESOURCE USE IN PROSTATE CANCER PATIENTS WITH BONE METASTASES**

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Amgen Inc., Thousand Oaks, CA, USA, 2Amgen (Europe) GmbH, Zug, Switzerland, 3Adelphi Real Practice in the management of mCRC patients, with a focus on the 3rd, 4th and later lines of therapy in Italy.

**OBJECTIVES:** Existing evidence suggests that around 49% of patients with bone metastases from the Adelphi Real World Disease Specific Programme USA 2012 were included in the analyses. Propensity Score Matching was used; patients with evidence of renal impairment were matched with those without on a 1:1 basis, controlling for: age, BMI, smoking status, employment status, and relevant comorbidities. We compared in-hospitalization and number of hospital stay days for patients with renal impairment and those without during the past 12 months prior to the point of data collection. A Wilcoxon sign-rank test was used to quantify the impact of renal impairment.

**RESULTS:** 109 patients per group were included in the analyses (total 218). The renal impairment group was estimated to have an increased risk of inpatient visits of 63% (p<0.036) compared to the control group (0.78 vs 0.48 inpatient visits per patient per year). Additionally, the renal impairment group had a mean of 2.43 (p=0.027) more inpatient days per year than the control group (5.00 vs 2.56 inpatient days per patient per year). It was also observed that the patients in the renal impairment group were less likely to have received chemotherapy (37% vs 47% received chemotherapy).

**CONCLUSIONS:** Findings suggest an increase in health care utilization in the hospital setting in prostate cancer patients with bone metastases and renal impairment. In addition, compromised renal function in those patients may potentially have restricted the use of nephrotoxic chemotherapy agents.

**PCN170 ESTIMATING THE VOI OF PIVOTAL STUDIES TOWARDS PREDICTIVE BIOMARKERS OF HIGH DOSE ALKYLATING CHEMOTHERAPY IN TRIPLE NEGATIVE BREAST CANCER**


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**OBJECTIVES:** To estimate the expected benefits from a pivotal randomised controlled trial of predictive biomarkers for high dose alkylating chemotherapy (HDAC) in triple negative breast cancer (TNBC) in order to increase drug utilisation and priority of further studies.

**METHODS:** A markov decision model compared treating 40-year olds TNBC women with HDAC based on four predictive biomarker strategies: 1) BRCA1-like by MLPA testing, 2) BRCA1-like by aCGH testing, 3) strategy 1 followed by XIST and 53BP1 testing; and 4) strategy 2 followed by XIST and 53BP1 testing, versus treating all patients with standard chemotherapy. A Dutch societal perspective and a 20-year time horizon were used. Input data came from literature and expert opinions. We assessed four primary outcomes: the expected value of (partial) perfect information (EVPI) VoI, the expected value of sample information (EVS) and the expected net benefit of sampling (ENBS) for the ongoing pivotal TNM trial (NCT01057069) and/or potential future studies.

**RESULTS:** The population EVPI was €663 million (€). The EVPI suggests prioritizing further research towards effectiveness parameters, specifically prevalence and positive predictive value of the biomarkers; response rates in biomarker negative patients and TNBC unclassified patients, which are estimated to collectively have a value of information of circa €630M. The value of further research on transition probabilities is estimated at €413M, followed by utilities at €334M and costs at €34M. Further information on transition probabilities could be gathered from the TNM trial and that of effectiveness parameters and costs from accompanying studies to this trial, altogether estimated to have an ENBS of €657M.

**CONCLUSIONS:** Further research on predictive biomarkers for HDAC should focus on gathering transition probability data from ongoing and accompanying studies to derive data on other effectiveness parameters and costs.

**PCN171 REAL WORLD DATA IN ONCOLOGY: THIRD- AND FOURTH-LINE TREATMENTS ADMINISTERED IN METASTATIC COLON-RECTAL CANCER (mCRC)**

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**OBJECTIVES:** The objective of this study was to assess the oncologists’ real clinical practice in the management of mCRC patients, with a focus on the 3rd, 4th and later lines of therapy in Italy.

**METHODS:** Data presented in this study were collected from medical records obtained by Italian oncologists on mCRC patients between March and April 2014 and retrieved from an extra boost of ONCOCVIEW database. ONCOCVIEW is a continuous syndicated study on cancer treatment in the hospital setting, based on the collection of patient questionnaires. Patients inclusion criteria were the presence of an mCRC diagnosis, 3rd or later actual therapy line and no participation in a phase II or III clinical study. Information collected included patient demographic characteristics, mCRC Characteristics (TNM Classification, Karnofsky performance status scale and mutation analyses) and treatments (actual and previous schedules, dosages and durations). Furthermore, additional inclusion criteria of the “Recurrence: Occurrence” information includes the use in 3rd or later line of treatment of drugs previously used, has been performed.

**RESULTS:** 261 patients diaries have been collected: 218 out of 261 patients were in third line of treatment, while 43 patients were in 4th or later line treatment. The most frequent first-tier scheme (mF) was Capecitabine alone (63 patients), while the most used schema in fourth line was a combination of Fluorouracil and Folinic Acid (7 patients). About 40% of molecules administered in 3rd or later line were a combination of 67% of molecules administered.

**Conclusions:** Results from the present study underline the unmet medical need in 3rd or later line of treatment of mCRC patients and the need for additional evidence-based treatment options.

**PCN172 BURDEN OF DRUG WASTE IN ONCOLOGY: OPTIMIZATION OF RESOURCE USE**

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**OBJECTIVES:** Minimizing waste of the use of drugs allows optimization of available resources in a scarce environment. Grouping patients may be an alternative to reduce waste in oncology. The aim of this study was to assess the economic and clinical burden of renal impairment in prostate cancer patients and the impact of using fully drug among group patients. Costs were derived from Simpro table. Exchange rate used was 1.00USD = 2.20BRL. **RESULTS:** Seventeen drugs were identified among reported chemotherapy regimens in which 11 were analyzed due to potential of saving costs. From these, only 6 drugs could be rationalized. The optimization of drug dispensing would lead to a year savings of US$ 83,587,88, US$ 17,592,22 and US$ 8,225,24 to 1 patient and small and medium size patients respectively. Calculating these savings represented from 2% to 8% of the total drug expenditure, regarding on the antineoplastic drugs used. Five of the 11 drugs did not cause savings due to small number of patients receiving those treatments.

**CONCLUSIONS:** Grouping patients for drug wastage minimization is an effective way to reduce costs. Furthermore, savings can be increased by gathering patients of different diseases.

**PCN173 RESOURCES UTILIZATION FOR THE INVESTIGATION OF PULMONARY NODULES IN A UNIVERSITY HOSPITAL CENTER IN QUEBEC, CANADA**


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**OBJECTIVES:** Lung cancer is the leading cause of death among cancer patients; therefore, the detection of a pulmonary nodule (PN) at the right moment is the first step for minimizing the prevalence of lung nodules detection, therefore the investigation requires a large number of health care resources. The objective of this study was to measure the health care resources used for the investigation of pulmonary nodules.

**METHODS:** A retrospective medical chart review was conducted at the CHUM-Hotel-Dieu in Montreal, Canada. Eligible patients were selected consecutively using the electronic appointment book of the pulmonary clinic, from January 1st 2011 to May 31st 2012. Inclusion criteria were: 40-year-old, present a nodule on a chest x-ray ({≤}3cm). The most frequent diagnostic pathways were thoracic CT-scanning (PET-Scan and Chest X-ray) performed at least once in respectively 96%, 85% and 77% of patients. The minimally invasive procedures (bronchoscopy and transthoracic needle biopsy) and the invasive procedures (thoracotomy and thoracoscopy) were the most frequently performed in patients with a lung cancer. On average, patients with a benign nodule underwent 0.77 minimally invasive or invasive procedures vs. 1.94 for patients with a malignant nodule (p<0.01). Seventeen patients were excluded from the study for diagnosis of malignant nodules.

**CONCLUSIONS:** The mean number of diagnostic procedures deployed for the investigation of pulmonary nodules. This study tends to demonstrate that minimally invasive and invasive procedures are mostly deployed for the diagnosis of malignant nodules.