

tion). **CONCLUSIONS:** Disability in cancer survivors is very common and is more severe than in other diseases.

## PCN145

## IMPACT OF NURSING AND PHARMACY CARE BETWEEN CAPECITABINE AND 5-FLUORURACIL REGIMENS IN THE MANAGEMENT OF ADVANCED ESOPHAGO-GASTRIC CANCER IN HONG KONG

Lee VVY<sup>1</sup>, Yao R<sup>2</sup>, Yip E<sup>2</sup>, Law K<sup>3</sup>, Tang G<sup>3</sup>, Zhou KR<sup>1</sup>

<sup>1</sup>The Chinese University of Hong Kong, Hong Kong, Hong Kong, <sup>2</sup>Princess Margaret Hospital, Kowloon, Hong Kong, <sup>3</sup>Queen Elizabeth Hospital, Kowloon, Hong Kong

**OBJECTIVES:** To compare the possible time savings from reduction of nursing and pharmacy time to manage advanced esophago-gastric cancer (AEGC) patients using capecitabine-based regimens versus traditional 5-FU based intravenous (IV) chemotherapy in the Hong Kong public hospital setting. **METHODS:** This was a time-and-motion study conducted in 2 public hospitals of Hong Kong based on the simulation of previously data on both capecitabine-based regimen (XELOX and XP) and IV 5-FU-based regimen (FOLFOX and FP). The preparation, dispensing and administration time for XELOX, XP, FOLFOX and FP were compared. The capital item utilization including hospital bed, infusion pump etc and length of patient attendance were recorded. Each subject was based on 24-week cycle in the analysis. The projected cost saving in nursing and pharmacy time was estimated if all AEGC in Hong Kong were prescribed capecitabine-based regimen. **RESULTS:** The average nursing time for FOLFOX and FP was 83.7 and 83.4 minutes versus XELOX and XP was 33.7 and 39.8 minutes respectively. The average pharmacy dispensing time for FOLFOX and FP was 25.3 and 71.4 minutes versus XELOX and XP was 18.7 and 19.9 minutes respectively. The total time saved for each patient for a 24-week cycle in FOLFOX versus XELOX was 734.8 minutes in nursing and 154.0 minutes in pharmacy as well as in FP versus XP was 182 minutes in nursing and 269.2 minutes in pharmacy. Nursing and pharmacy could potentially spare 3.3 full time equivalent (FTE) and 1.5 FTE if all AEGC patients were converted to capecitabine-based chemotherapy. **CONCLUSIONS:** Capecitabine-based chemotherapy regimens saved in both nursing and pharmacy time as compared to traditional 5-FU based IV chemotherapy in the Hong Kong public hospital setting.

## PCN146

## WORKFORCE PARTICIPATION AND PRODUCTIVITY LOSSES AFTER HEAD AND NECK CANCER

Pearce AM<sup>1</sup>, Timmons A<sup>1</sup>, Hanly P<sup>2</sup>, O'Neill C<sup>3</sup>, Sharp L<sup>1</sup>

<sup>1</sup>National Cancer Registry Ireland, Cork, Ireland, <sup>2</sup>National College of Ireland, Dublin, Ireland, <sup>3</sup>NUI Galway, Galway, Ireland

**OBJECTIVES:** There has been no estimate of the productivity losses associated with head and neck cancer (HNC) conducted using bottom-up data, or beyond premature mortality. The aim of this work is to investigate workforce participation, and estimate the productivity losses associated with temporary and permanent work absence, reduced work hours, and premature mortality in individuals with HNC in Ireland. **METHODS:** Survey data were collected from a cancer registry identified cohort of individuals in Ireland diagnosed with head and neck cancer between January 1994 and December 2011. Data collected included employment status at time of diagnosis and workforce participation patterns following diagnosis. These data were combined with population-level survival estimates and national wage data to estimate the value of temporary and permanent work absence, reduced work hours and premature mortality using a Human Capital Approach. **RESULTS:** Of the survey respondents, 276 were in paid work at the time of diagnosis. 88% had time off following diagnosis, with 63% of these returning to work. The mean (median) time off work was 9 months (6 months), range of 0 to 65 months. Seventy percent of individuals returning to work reported reducing the hours they worked, by an average of 20 hours per week. Preliminary results show the average productivity losses per person associated with temporary and permanent work absence and reduced work hours are €222,000. Productivity losses associated with premature mortality and the results of sensitivity analyses to test discount and wage growth rates will also be presented. **CONCLUSIONS:** Head and neck cancer and its treatment can have a profound impact on workforce participation. This affects not only the individuals' and their families, but also society in terms of productivity costs. These costs should be considered in economic evaluations of cancer treatments and health service delivery in this population.

## PCN147

## HOSPITAL RESOURCES CONSUMPTION ASSOCIATED WITH TRASTUZUMAB TREATMENT IN BREAST CANCER IN PORTUGAL

Andrade S<sup>1</sup>, Santos A<sup>2</sup>

<sup>1</sup>Roche Farmacêutica Quimica, Amadora, Portugal, <sup>2</sup>Prime Focus Health, Paço de Arcos, Portugal

**OBJECTIVES:** Determine the costs associated with the preparation and administration, considering the material resources (MR) consumption and time spent by the health care professionals (HP), of Her2 positive breast cancer treatment with trastuzumab intravenous (iv) and to estimate the difference compared with a subcutaneous (sc) formulation. **METHODS:** Data were collected in face to face interviews with the pharmacist and nurse responsible for the preparation and administration of trastuzumab in each hospital. The cost of the HP time was calculated by multiplying the value of each HP hour by the average time of each procedure; MR costs were determined based on the values presented in official sources or in price table provided by the manufacturer. **RESULTS:** Five public and two private Hospitals from mainland Portugal, with an average of 12 patients with HER2+ breast cancer treated with trastuzumab iv, per week, participated in the study. The average time spent by the HP in trastuzumab preparation and administration was 79 minutes for iv and 18 minutes for sc. Per treatment cycle, the estimated average overall cost of each treatment was €43.22 (HP - €26.01; MR - €17.21) for iv, and €3.18 (HP - €3.13; MR - €0.05) for sc. Considering the total course of treatment (18 cycles), the treatment with trastuzumab iv is estimated at €777.96 versus €57.19 on sc treatment. **CONCLUSIONS:** Trastuzumab sc formulation would potentially allow savings of approximately €720 per patient, and provide an important benefit to the patients. Trastuzumab sc would also contribute to maximize the efficiency and effectiveness of health resources.

This study presents a limitation regarding the subjectivity inherent to costs determination based on answers given by the HP. Moreover values may be underestimated due to lack of information regarding fixed costs.

## PCN148

## RESOURCE USE OF NON-SMALL CELL LUNG CANCER IN SLOVAKIA

Ondrusova M<sup>1</sup>, Psenkova M<sup>1</sup>, Berzinec P<sup>2</sup>, Basso F<sup>3</sup>

<sup>1</sup>Pharm-In Ltd., Bratislava, Slovak Republic, <sup>2</sup>Specialized Hospital of St Zoerardus Zobor, Nitra, Slovak Republic, <sup>3</sup>Boehringer Ingelheim GmbH, Vienna, Austria

**OBJECTIVES:** Data on economic burden of advanced or metastatic non-small cell lung cancer (NSCLC) are lacking in Slovakia. Therefore, the objective of this cost of illness study was to measure the resource utilisation and the costs associated with treating advanced or metastatic NSCLC in Slovakia and provide a basis for cost-effectiveness evaluations. **METHODS:** The project was run in two phases: in the first phase an Expert panel took part in the survey and developed the diagnostic and treatment algorithms to reflect the local medical practice and quantify the use of resources associated with anticancer drug treatment, management of adverse events and best supportive care. Then, in the second step, 2012 management costs were applied to the resources. All types of health care used in the NSCLC management were evaluated (outpatient and inpatient visits, diagnostics, prescription drugs and examinations). The analysis was performed from the Slovakian health insurance perspective reflecting direct medical costs only. The structure of cost data follows the requirements of pharmaco-economic modelling in NSCLC. **RESULTS:** Monthly costs of advanced or metastatic NSCLC management during the active treatment (before progression) count for €1055.67, during the disease progression €1101.21 and on the best supporting care €1561.22. The most frequent regimens were cisplatin+gemcitabine (20.6%) and cisplatin+pemetrexed (19.1%) in the first line, erlotinib (49.1%) in the second line and gemcitabine (29.6%) in the third line. The most costly side effects were renal toxicity (€1060.85), febrile neutropenia (€902.92), hemoptysis (€717.08), anaemia (€668.84), pain (€631.34), leukopenia/neutropenia (€629.58), dyspnoea (€628.35), thrombocytopenia (€578.60), nausea/vomiting (€562.72) and fatigue (€523.19). **CONCLUSIONS:** Cost-effectiveness must be demonstrated in order to get reimbursement in Slovakia and local resource use data are key drivers for health economic modelling and can guide resource allocation decisions in NSCLC. This study provides important information to support these decisions.

## CANCER – Patient-Reported Outcomes &amp; Patient Preference Studies

## PCN149

## ADHERENCE RATES FOR INTRAVENOUS CHEMOTHERAPY REGIMENS TO TREAT COLON CANCER

Seal B<sup>1</sup>, Asche CV<sup>2</sup>, Shermock KM<sup>3</sup>, Anderson S<sup>1</sup>, Cameron J<sup>1</sup>

<sup>1</sup>Bayer HealthCare Pharmaceuticals, Inc., Pine Brook, NJ, USA, <sup>2</sup>University of Illinois College of Medicine, Peoria, IL, USA, <sup>3</sup>The Johns Hopkins Medical Institutions, Baltimore, MD, USA

**OBJECTIVES:** It is widely thought that adherence rates to intravenous (IV) chemotherapy regimens for colon cancer are high. However, there are no known formal assessments of this issue. **METHODS:** A retrospective analysis was performed using the Optuminsight Oncology claims database. Patients aged 18 years and older, diagnosed with CRC between July 1, 2004 and December 31, 2010, who were insured by a commercial health plan were included in the study. Adherence to the following IV chemotherapy regimens was assessed using the National Comprehensive Cancer Network (NCCN) guidelines as the standard for expected cycle/regimen duration: FOLFOX, FOLFOX+bevacizumab, FOLFIRI, and FOLFIRI+bevacizumab. Adherence was assessed using the medication possession ratio (MPR), calculated as the number of days a patient was covered by their chemotherapy regimen, according to NCCN guidelines, divided by the number of days elapsed from the first to the last infusion of that regimen. **RESULTS:** A total of 46,941 chemotherapy cycles in 6,880 patients were analyzed. Overall, adherence rates to IV chemotherapy was fairly high, with mean MPR ranging between 0.84 and 0.88 for these regimens. However, a substantial proportion of patients for each regimen experienced low adherence. Twenty five percent of patients receiving FOLFOX, FOLFOX+bevacizumab, and FOLFIRI+bevacizumab regimens experienced MPR<0.8. Additionally, approximately 35% of patients receiving FOLFIRI experienced an MPR<0.8. At least 10% of patients receiving FOLFOX regimens had an MPR less than 0.7; while at least 10% of patients receiving FOLFIRI regimens had an MPR of less than 0.6. **CONCLUSIONS:** Although overall rates of adherence were fairly high, a substantial subpopulation experienced low adherence to each of these IV regimens per NCCN guideline recommendations. The reasons for the low adherence rates need to be explored as this could have an impact on efficacy. These results also highlight the drawback of relying solely on summary statistics at the population level.

## PCN150

## PERSISTENCE IN PATIENTS WITH BREAST CANCER TREATED WITH TAMOXIFEN OR AROMATASE INHIBITORS - ANALYSIS BASED ON ONCOLOGY ANALYZER DATABASE

Schmidt N<sup>1</sup>, Haas G<sup>1</sup>, Mergenthaler U<sup>1</sup>, Kostev K<sup>1</sup>, Hadji B<sup>2</sup>

<sup>1</sup>IIMS Health, Frankfurt am Main, Germany, <sup>2</sup>Department of Gynecology, Endocrinology and Oncology, Phillips-University of Marburg, Germany, Marburg, Germany

**OBJECTIVES:** Lack of non-compliance is often underestimated in breast cancer treatment. The aim of our study was to analyze the persistence with tamoxifen (TAM) and aromatase inhibitors (AI) in women with breast cancer (BC) and to identify reasons of treatment discontinuation and determinants of non-persistence. **METHODS:** We used data of the Oncology Analyzer database, which includes individual information on patient history related to the treatment of patients across all cancer types. This enables a complete overview of cancer patient care from diagnosis onward, facilitating research in areas such as treatment changes, dosing and regimen compliance, market sizing and off-label use. We identified 7063 breast cancer patients with a start of TAM or AI therapy from 1990 until 2011 and with a treatment duration of at least 365 days. **RESULTS:** After