

in the USA in 2002. Inpatient care costs accounted for more than 60% of total cost. **CONCLUSIONS:** Although the economic impact of the VTE in cancer patients as well as the impact of VTE on patients' quality of life is not well studied, the present review demonstrate that there is a substantial humanistic and economic burden associated with VTE in cancer patients.

PCN68

A MICRO-COSTING OF THE INPATIENT MANAGEMENT OF FEBRILE NEUTROPENIA IN THE IRISH HEALTH CARE SETTING

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OBJECTIVES: Febrile neutropenia (FN) is a potentially life-threatening complication of chemotherapy which generally prompts immediate hospitalisation. The study objective was to evaluate the resource use and cost of hospitalisation for FN within the Irish Health care setting. Micro-costing techniques were used. The health payer perspective was adopted. **METHODS:** This was a single centre study. Adult cancer patients undergoing chemotherapy, who were subsequently admitted for FN, were identified prospectively. Patient medical records were reviewed retrospectively. **RESULTS:** Patient demographics and resource utilisation data (pertaining to the management of FN) were obtained from a cohort of 32 patients (69% female, mean age = 58.8 years). Twenty-five percent of patients had more than one FN episode. In total, 42 FN episodes were captured; 60% of episodes had occurred within the first two cycles of chemotherapy. The bootstrap estimation was used to determine mean hospital length of stay (LOS) with standard deviation (\pm SD) and mean costs (\pm SD). The mean LOS was 7.3 (\pm 0.5) days. The mean cost per FN episode was €8,915 (\pm 718). The major cost driver was hospital bed-stay (mean cost of €6,851 (\pm 549)). Other cost drivers included antibacterial treatment at €760 (\pm 156), laboratory investigations at €538 (\pm 47) and the requirement for blood bank products at €525 (\pm 189). **CONCLUSIONS:** To our knowledge, this is the first investigation of the cost of chemotherapy induced FN within the context of the Irish Health care setting. Our results will be used in cost-effectiveness analyses of novel chemotherapeutic agents and interventions which prevent or treat FN.

PCN69

THE COST OF NSCLC IN FRANCE

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Though lung cancer, and the most common subtype, non-small cell lung cancer (NSCLC), occur frequently, there are limited data quantifying the economic burden of these cancers in Europe. **OBJECTIVES:** To describe the burden of NSCLC in three European countries using patient-level data from commercially available health care data. **METHODS:** Patient-level data were obtained for France from the PMSI (French National discharge database; containing data from publicly-funded hospitals) from 2008 to 2011 while excluding patients with a prior-hospitalization for lung cancer in the preceding 24-month period (2006-2007). As NSCLC does not have a separate ICD-10 code, expert opinion was used to eliminate patients diagnosed with non-NSCLC, based on particular procedures and tests. Hospital resource use was valued using French DRG tariffs. Chemotherapy regimens were valued using official rates. **RESULTS:** A total of 61,144 patients were identified with lung cancer in 2008. 19,099 were excluded because of prior lung cancer diagnoses. Of this cohort of 42,043 patients, 25,054 were exclusively treated in the public setting; 15,061 were identified as NSCLC and were considered in this analysis. Hospital-related costs cumulated over the follow-up period were estimated at €337,382m, with chemotherapy costs representing 9%. Mean cumulated hospital-related cost per-patient were estimated at €22,401 over the follow-up period. Terminal care represented a mean per-patient cost of €10,440. Adverse events triggering hospital-expenses represented a mean per-patient cost of €5,694. Patients \leq 55 years incurred higher costs per-person over the follow-up period than patients $>$ 55 years; €25,386 vs. €21,368. These extra costs were mostly driven by chemotherapy costs (€13,287 vs. €10,561). Patient with metastases incurred higher costs over the follow-up period than patients without these, €23,118 vs. €21,934. **CONCLUSIONS:** This is one of the first analyses quantifying the economic burden of NSCLC. The burden for France is substantial. Subsequent analyses will allow for comparisons of this burden across other countries.

PCN70

CHEMOTHERAPY TREATMENT PATTERNS, HEALTH CARE COSTS, AND MORTALITY OF LUNG CANCER PATIENTS IN TAIWAN - A LONGITUDINAL STUDY BETWEEN 2000 AND 2008

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OBJECTIVES: To examine chemotherapy treatment patterns, health care costs, and mortality of lung cancer patients in Taiwan. **METHODS:** This study analyzed medical and pharmacy claims from a random sample of one million taken from all beneficiaries covered under Taiwan's national health insurance in 2000. Newly diagnosed lung cancer patients between 2000 and 2008 (first observed diagnosis as the index date) were identified based on medical claims with associated diagnoses. Patients were followed until death or the end of 2008. Per patient per month [PPPM] total health care costs (in USD) and median survival were reported. Chemotherapy treatment patterns during the follow-up were examined. **RESULTS:** This study included 3,343 lung cancer patients (mean age: 67.1 years; 34.5% female; 35.4% secondary lung cancer). Median survival was 8.1 months. PPPM costs were \$2,322 USD (interquartile range \$450-\$2,902). Lifetime costs from diagnosis among those who died during the study period were \$12,788 USD (interquartile range \$2,674-\$17,546). Of the 1,633 patients who received chemotherapy during the follow-up, 375 received only one chemotherapy agent (gemcitabine 35.7%, vinorelbine 20.5%,

platinum-based agents 20.3%, UFUR 8.3%, taxanes 7.7%, etoposide 7.5%). Close to three quarters (74.8%) of treated patients received combination therapy with platinum-based agents. Of 1,221 patients treated with platinum-based combination therapy, the therapy most commonly used includes gemcitabine (37.5%), taxanes (21.5%), and vinorelbine (18.2%), while 21.4% of patients received two or more other agents. We observed longer median survival in patients with a higher number of chemotherapy agents received. **CONCLUSIONS:** Lung cancer patients in Taiwan incurred considerable health care costs after diagnosis. More than half of patients were treated with chemotherapy, in particular with multiple chemotherapy agents. Future research comparing cost-effectiveness among different treatment options is warranted.

PCN71

AUSTRALIAN STANDARD COSTS AND CONSEQUENCES OF FOUR CHEMOTHERAPY ADVERSE EVENTS

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OBJECTIVES: This work aimed to develop rigorous models of the Australian costs of four common chemotherapy adverse event (diarrhoea, vomiting, anaemia and neutropenia), which provide standard cost estimates and can be used in future models of chemotherapy cost effectiveness. **METHODS:** Decision analytic modelling was used to identify the costs and consequences of AEs. These are not only stand alone models, but also form decision tree sections to be incorporated into larger models of chemotherapy cost effectiveness. Model structures are based on best-practice clinical pathways, and incorporate efficacy of side effect treatment, quality of life and chemotherapy dose. Literature reviews identified clinical inputs. Costs of treatment were obtained from standard Australian sources such as the Pharmaceutical Benefits Schedule. The perspective was the Australian health care system. One-way sensitivity analyses explored uncertainty in the models. **RESULTS:** The base case average cost per patient of diarrhoea ranged from \$19 (mild AE) to \$4,821 (severe AE); those for anaemia ranged from \$51 (mild AE) to \$17,100 (moderate AE) depending on the type of chemotherapy and anaemia treatment. Vomiting prevention base case costs ranged from \$0.84 (low risk chemotherapy) to \$157.55 (high risk chemotherapy requiring breakthrough and refractory management). Neutropenia base case costs ranged from \$2,235 (outpatient management) to \$12,054 (intensive care required). Where possible, the impact on quality of life and chemotherapy total dose was also modelled. Estimates of AE costs vary widely in the literature, however our estimates appear consistent with studies of similar methodology. **CONCLUSIONS:** The four models presented represent best-practice modelling techniques for chemotherapy AEs. Each has been designed to enable either the results or the model structure to be incorporated into larger models of chemotherapy cost effectiveness. This allows model builders to incorporate rigorous, Australian-specific estimates of the costs and consequences of chemotherapy AEs into models of chemotherapy cost effectiveness.

PCN72

HORMONAL RECEPTOR POSITIVE, HER2 NEGATIVE METASTATIC BREAST CANCER (MBC HR+HER2-): PRE AND POST-PROGRESSION COSTS UNDER THE PUBLIC HEALTH CARE SYSTEM (SUS) AND SOCIETAL PERSPECTIVES IN BRAZIL

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OBJECTIVES: To estimate direct medical costs and productivity costs of hormonal receptor positive, HER2 negative metastatic breast cancer (MBC HR+ HER2-) under the public health care system (SUS) and societal perspectives in Brazil, being MBC cost data very scarce in Brazil so far. **METHODS:** A systematic literature review was performed in the following databases: Cochrane, MEDLINE via Pubmed, LILACS, EMBASE and CRD until FEB 2013. Gray literature was also included. National guidelines search and expert validation was carried out specifically for the direct medical cost estimations. Direct medical costs were stratified as pre and post-progression costs and terminal costs. Pre and post-progression costs considered outpatient, inpatient and monitoring costs. For post-progression, metastasis treatment costs were also estimated, including bone, lung, liver and brain metastasis. For the productivity costs, the Human Capital method was chosen. Days of absenteeism were obtained from the literature and a Markov model was used to estimate the loss of productivity in 1 year (as the mean age of MBC in Brazil is 59 and official retirement at 60 years of age). Unit costs were obtained from Brazilian official lists and IBGE (income). All costs are expressed in 2012 Brazilian Real (BRL). **RESULTS:** Pre, post-progression and terminal costs of MBC HR+HER2- were estimated in BRL308, BRL731 and BRL4.164 respectively, under SUS perspective. Post-progression metastasis treatment costs presented an average of BRL12.047 under SUS perspective. The productivity costs were estimated in BRL26.056 under the societal perspective considering the available treatments at SUS for MBC HR+HER2- patients. **CONCLUSIONS:** MBC HR+HER2- post-progression costs impose a significant economic burden under SUS perspective as well as productivity losses to the society. Novel therapies that postpone progression in those patients may reduce costs associated.

PCN73

ESTIMATING THE COST OF HPV-RELATED DISEASES IN TURKEY: A DELPHI APPROACH

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OBJECTIVES: Very limited data is available on the cost and burden of HPV-related diseases in Turkey. The aim of our analysis is to evaluate the corresponding cost through understanding the current clinical practices, use of resources and treat-