PCN30

THE BURDEN OF MULTIPLE MYELOMA: ASSESSMENT ON OCCURRENCE, OUTCOMES AND COST USING A RETROSPECTIVE LONGITUDINAL STUDY BASED ON ADMINISTRATIVE CLAIMS DATABASE

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OBJECTIVES: Multiple myeloma (MM) is a malignancy of plasma cells that results in an overproduction of light and heavy chain monoclonal immunoglobulins. Multiple myeloma imposes a significant economic and humanistic burden on patients and society. The present study is aimed to assess the burden of multiple myeloma in epidemiologic and economic terms. **METHODS:** A retrospective, naturalistic longitudinal study on the occurrence, outcomes and cost of multiple myeloma using an administrative database was performed. We selected residents of a North-eastern Region of Italy, who had the multiple myeloma first hospital admission during the period 2001–2005, and we followed them up until December 31, 2006, death or transfers. Direct medical costs were quantified in the perspective of the Regional Health Service. **RESULTS:** out of a population if 1.2 million inhabitants, we enrolled 517 patients (52% female) leading to a crude incidence of 8.6/100.000 person-years. During the period of observation, 364 (70.4%) subjects died. Total health care costs per patients over the maximum of follow-up were €78,020 for the subjects younger than 70 years old and €23,096 in older group. **CONCLUSIONS:** The overall cost of MM is substantial, particularly in the first year after diagnosis and for hospital care. The natural history of the disease requires a great absorption of resources in the early phases after diagnosis and in the late stages of the disease. Multiple myeloma imposes a significant epidemiologic and economic burden to the healthcare- system and society.

PCN31

A DESCRIPTIVE ANALYSIS OF THE ASSOCIATION BETWEEN BREAST CANCER RISK, BONE MINERAL DENSITY AND FRACTURES IN POST-MENOPAUSAL WOMEN IN THE CANADIAN MULTICENTRE OSTEOPOROSIS STUDY

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OBJECTIVES: To explore potential correlations among risk factors for breast cancer, bone mineral density (BMD) and fractures in post-menopausal women (PMW). **METHODS:** A cohort of PMW aged 50–85 without breast cancer history (BC) was obtained from the Canadian Multicentre Osteoporosis Study (CaMos) database, a prospective and longitudinal cohort study following subjects for 10 years. Cross-tabulations were calculated between baseline 5-year breast cancer risk score quartiles (Gail scores) and baseline family history of cancer (breast, ovarian, prostate), age group, incident breast cancer (during follow-up), fracture (any minimal trauma, or vertebral fracture based on x-ray), and BMD status (normal, osteopenia, osteoporosis). Another cross-tabulation was performed for baseline BMD by incident BC. **RESULTS:** Gail score quartiles for 4,770 PMW were: Q1 < 1.329; 1.329 = Q2 = 1.581; 1.581 < Q3 = 1.968; Q4 > 1.968; mean = 1.77). Among 1,159 PMW with family history of cancer, 76% had Gail scores in the 3rd (17%) and 4th (59%) quartiles. Older individuals had higher Gail scores, as proportions aged 50–59, 60–69, and 70+ within Q3 and Q4 were 8.5% & 11.7%; 30.3% & 22.4%; and 43.3% & 29.4%, respectively. Nearly 4% (n = 184) had incident BC, and most cases were diagnosed in women with higher baseline Gail scores (33% in Q3; 30% in Q4). Almost 27% (1,263) had prevalent fracture and these women had higher Gail scores (35% in Q3: 27% in Q4). In PMW with baseline osteopenia, 30% were in Q3 and 22% in Q4, while for osteoporosis the proportions were 34% and 26%, respectively. Among PMW with incident BC, 70% had baseline osteopenia (55%) or osteoporosis (15%). **CONCLUSIONS:** The association between risk of breast cancer and fractures in PMW is uncertain. Additional analyses adjusting for multiple confounders in this population are needed to help improve our understanding of this complex relationship.

PCN32

IMPLEMENTATION OF CLINICAL INTERVENTION REPORTING SYSTEM FOR PHARMACISTS

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OBJECTIVES: To evaluate pharmacy clinical interventions done in the children cancer hospital Egypt during the period from July 2007 to March 2009. **METHODS:** The clinical intervention reports were recorded into a database made by the department of pharmaceutical services. **RESULTS:** A total of 362 Pharmacy Clinical interventions were recorded(this number constitute only 40% of the daily interventions), 52(14.4%) were category A, which is Incomplete prescription (missing: Generic name, drug form, strength, dose, duration.....etc.); 58(16%) were category B, which is Irrational prescribing; 39(10.8%) were category C, which is Excessive quantities, Unnecessary medication Duplication of therapy; 152 (41.99%) were category D, which is inappropriate dosage/route/flow rate/duration of therapy, where from the 152 Intervention in category D 65% was Inappropriate dosage, 15% inappropriate flow rate and 20% inappropriate duration of treatment; 25 (6.9%) were category E Drug-drug interactions; 8(2.2%) were category F, which is Allergy to a prescribed medicine; 11(3%) were category G, which is Drug incompatibilities-Disease e.g. G6PDD-Food -Lab tests; 14(3.9%) were category H, which is Drug monitoring is needed; 1 Intervention was category I, which is Dose adjustment is needed due to renal insufficiency and 2 were category J which is Dose adjustment is needed due to hepatic insufficiency. **CONCLUSIONS:** The 362 Pharmacy clinical interventions were all medical errors that were prevented by the pharmacy staff. The major intervention was mainly category D regarding inappropriate dosage. The Pharmacy Clinical Intervention database will be used now on the floors, to encourage participation from the pharmacists and increased the reporting.

CANCER – Cost Studies

PCN34

BUDGET IMPACT ANALYSIS OF DASATINIB IN PATIENTS WITH IMATINIB-RESISTANT CHRONIC MYELOID LEUKEMIA (CML) IN BRAZIL

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OBJECTIVES: To evaluate the impact, on Brazilian Public Health Care System (SUS) budget, of reimbursing for dasatinib for newly diagnosed CML patients who become imatinib-resistant. The budget impact analysis is conducted for three consecutive years. **METHODS:** Due to the rapid evolution of the disease, a monthly-cycle Markov model incorporating clinical and epidemiological data was developed to determine the target population throughout the analysis time. The base case analysis for imatinib-resistant CML patients compared the costs of imatinib (600–800 mg/day), versus dasatinib (100–140 mg/day). Disease progression depended on the best treatment response rates taken from START clinical trials. Pharmaceutical costs were obtained according to the official price and standard government discounting procedures, but alternative costing scenarios were also evaluated. Data sources for the epidemiological and treatment regimen distributions input variables include reports from the Brazilian National Cancer Institute (INCA) and published literature. Probability sensitivity analysis (PSA) was conducted to account for uncertainties of the model. The three-year time period was considered adequate as approval of nilotinib in the near future will impact the market share structure for imatinib-resistant CML patients for later years. **RESULTS:** Annual incidence of CML was estimated as 1431. Within one year's time, 481 CML patients are expected to become imatinib-resistant. In the base case, the net budget impact was a savings of about €1,900,000 in 2009 to savings around €3,300,000 in 2011, with a total savings of approximately €8,000,000/three years time frame. The net impact on the alternative costing scenarios remained negative. The acceptability curve generated from the PSA showed a 100% probability of savings on the base case. **CONCLUSIONS:** The inclusion of dasatinib as 2nd line therapy for newly diagnosed CML patients who have become imatinib-resistant in Brazil would result in increasingly and significant savings, even after accounting for uncertainties of the model.

PCN35

BUDGETARY IMPACT OF ORAL CHEMOTHERAPY: REAL-WORLD DATA ANALYSIS FROM PAYERS' PERSPECTIVES IN BRAZIL

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OBJECTIVES: In Brazil, health insurance companies (HIC) must offer coverage for intravenous chemotherapy drugs (IVCD), but not for oral chemotherapy drugs (OCD). We aimed to evaluate the incremental costs and the budgetary impact of the incorporation of OCD, using real world data. **METHODS:** We prospectively collected data during 2008, on chemotherapy usage in 14 HIC, on a population of 2 million people from different regions in Brazil. First we calculated the costs of the IVCD actually used. After that, we indentified which patients would have formal indication for OCD either as a substitutive treatment or in association with IVCD. Then, we calculated the costs associated with this intervention. Later, the budgetary impact of using OCD for eligible patients was totaled. Only drug acquisition costs were taken into account. We were conservative and assumed a "worst case scenario" (WCS) approach as the base case, therefore skewing results against OCD. **RESULTS:** During the one-year period, 1328 patients that received intravenous chemotherapy also had formal indication to receive OCD. The cost of the treatment actually done was US$19,630,000. If OCD were also used, the incremental cost would be an additional US$5,500,000. The relative incremental cost associated with OCD is therefore US$2.75 per capita per year or US$0.23 per capita per month, in a WCS. **CONCLUSIONS:** The budgetary impact linked with the adoption of OCD is of US$0.23 per capita per month, in Brazil, according to this real world data analysis.

PCN36

EVIDENCE-BASED MEDICINE (EBM) AND THE PROFILE OF APPEALS FOLLOWING AUDITING IN CHEMOTHERAPY TREATMENTS

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OBJECTIVES: New health technologies and drugs have great impact on costs, mainly in cancer treatment. It was previously shown that EBM can be a powerful tool in preventing the coverage of experimental treatments. However, it is usual to receive appeals contesting the denied coverage. Our goal is to define the profile of appeals in a large health care plan (HP) in Sao Paulo. **METHODS:** We collected all data on billing and contestation relative to chemotherapy treatments performed by this HP