products in Europe as compared to the US. CONCLUSION: While European regulatory bodies have long-embraced QoL/PROs (along with efficacy and safety) as key endpoints for approval, the FDA is starting to acknowledge pharmacoeconomics in their evaluations. Further research is warranted to determine if there is a correlation between pharmacoeconomic messaging and product uptake, with prescription or unit sales analysis combined with large scale physician surveys on influences of prescribing patterns.

PCN88

FACTORS ASSOCIATED WITH THE PRESCRIPTION OF ADJUVANT HORMONAL THERAPIES AMONG MEDICAID ENROLLEES WITH BREAST CANCER
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OBJECTIVE: The purpose of this study was to examine various patient and provider characteristics associated with being prescribed an aromatase inhibitors (AI) v. tamoxifen only therapy among a cohort of North Carolina (NC) Medicaid enrollees diagnosed with breast cancer. METHODS: Data was gathered using the Linked NC Central Cancer Registry-Medicaid Claims database which links NC cancer registry claims with Medicaid data. A logistic regression model was built to determine the odds of an individual ever receiving an AI during the study period. RESULTS: A total of 600 patients were included, of which 451 (75.2%) and 149 (24.8%) received tamoxifen only and AI (alone or in combination) therapy, respectively. Results showed that patients who lived in urban areas (compared to rural), were postmenopausal (based on age ≥55), had regional- or distant-staged cancer (opposed to local or unknown), had been hospitalized in the year prior to treatment index, and had breast conserving surgery (BCS) (rather than mastectomy) had 1.97 [1.29, 3.00], 2.26 [1.80, 2.83], 2.74 [1.79, 4.20], 1.87 [1.20, 2.92], 0.64 [0.41, 1.00] times the odds, respectively, of ever receiving an AI compared to tamoxifen only. Additionally, for every one-year increase in the time a patient started hormonal therapy, the odds of receiving AI therapy (compared to tamoxifen only) increased 2.26 [1.80, 2.83] fold. CONCLUSION: The differences in antiestrogenic treatment type based on whether the patient visited a hospital in the year prior to the study and in whether the patient lived in urban or rural area may represent disparities in access to advances in care. Furthermore, it may be the case that women who undergo mastectomy or who have locally staged cancer are not being treated aggressively enough with novel antiestrogenic therapies.

PCN89

DRUG UTILIZATION PATTERNS AND COSTS FOR ERYTHROPOIESIS-STIMULATING AGENTS (ESAs) IN A MANAGED CARE CANCER POPULATION RECEIVING CHEMOTHERAPY
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OBJECTIVE: To assess current utilization patterns and costs for epoetin alfa (EPO) and darbepoetin alfa (DARB), two ESAs, in managed care cancer patients receiving chemotherapy. METHODS: Medical claims from the Ingenix Impact National Managed Care Database between January 2006 and June 2007 were analyzed. Patients included were ≥18 years old, had ≥1 claim for cancer within 90 days prior to treatment initiation, were newly initiated on EPO or DARB with ≥2 doses of either drug, and received chemotherapy during ESA treatment. Mean cumulative ESA dose was used to calculate ESA cost (based on October 2007 wholesale acquisition cost [WAC]) and dose ratio. RESULTS: A total of 2322 EPO and 4353 DARB formed the study population. EPO patients were older (57.7 vs. 55.7 years; p < 0.0001) and a lower proportion were women (65% vs. 69%; p = 0.0002), compared to DARB patients. Mean ESA treatment duration was slightly longer in the EPO group (59 vs. 55 days; p = 0.0001). The mean cumulative dose (SD) was 312,723 (255,432) Units for EPO and 1174 (833) mcg for DARB, resulting in a dose ratio of 266:1 (Units EPO : mcg DARB). Based on these doses, WAC-based ESA cost was 28% less for EPO than for DARB (EPO $3915; DARB $5434; p < 0.0001). A sensitivity analysis using January 2008 average sales price +6% also indicated lower cost for EPO (EPO $2803; DARB $3396; p < .0001). This finding was also maintained after adjusting for age, gender, treatment duration, payer type, type of malignancies, cancer treatments, and severity indicators, (adjusted cost difference: $1788, p < 0.0001). CONCLUSION: This observational study of 6675 cancer patients reported a dose ratio of 266:1 which resulted in a 28% lower drug cost in the EPO group compared to the DARB group. These findings provide greater understanding of current real-world ESA utilization in the managed care setting.

PCN90

EFFECT OF THE HUNGARIAN ORGANIZED NATIONWIDE CERVICAL CANCER SCREENING PROGRAMME ON THE COVERAGE OF WOMEN UNDER THE AGE OF 25 YEARS
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OBJECTIVE: Organized nationwide screening programme for cervical cancer was introduced in Hungary in 2003. The aim of this study is to analyze the three year screening rate (coverage) of the organized cervical cancer screening programme in women aged less than 25 years. Although women under 25 years are out of the scope of the organized screening programme, opportunistic screening may be applied. METHODS: The data derive from the financial database of the National Health Insurance Fund Administration (OEP) of Hungary covering the period of 2000–2002 (without organized screening) and 2003–2005 (with organized screening). We calculated the three-year screening rate for 2003–2005 according to the age-group of women less than 25 years (15–19 and 20–24). Screening is defined with cytological examination of Papanicolau smear and includes all smears taken either within or outside of the organized programme. RESULTS: The three-year screening rate of women aged 25–64 years was 52.65 % in 2003–2005. The coverage of women under 25 years was the following in 2003–2005: 15–19 years: 31.94 %; 20–24 years: 61.20 %. Comparing these values to the coverage of 2000–2002 (without organized screening) we found a decreasing tendency in these two age-groups: 15–19 years: –0.06 percent point decrease (non-significant), 20–24 years: –6.28 percent point decrease (p < 0.01). CONCLUSION: We found that coverage of women aged 20–24 being out of the scope of the organized cervical cancer screening programme is higher (61.2 %) than the average of target age group of 25–64 years (52.65). Despite of this finding, the coverage of women 15–19 and 20–24
showed a decreasing tendency following the introduction of organized screening programme.

**PCN91**

A PREVALENCE-BASED ECONOMIC ANALYSIS OF THE GROWTH IN CANCER TREATMENT SPENDING IN THE UNITED STATES

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OBJECTIVE: The cost of illness due to cancer is substantial in terms of both human suffering and economic resources. The growth in cancer treatment spending in the United States is due in large part to increases in survival and cancer prevalence. The objective of this study is to analyze the growth in spending on direct medical costs for cancer treatment using a prevalence-based cost-of-illness approach. Direct costs include personal health care expenditures for hospital and nursing home care, physician and other professional services, drugs, and home care. METHODS: Estimates for cancer prevalence counts in the year 2004 were derived by applying U.S. Census population data to National Cancer Institute Surveillance Epidemiology and End Results (SEER 9) and historical Connecticut Limited Duration Prevalence proportions. Cancer treatment cost estimates were based on Centers for Medicare & Medicaid Services projections for total 2005 health expenditures by type of direct costs, and the National Center for Health Statistics’s methodology for calculating direct costs for major diagnostic groups. Cancer treatment spending and national health care expenditure values were adjusted to year 2005 dollars using the Consumer Price Index—All Urban Consumers. RESULTS: From 1985 to 2004, inflation adjusted per-capita national health care expenditures increased 70%, while inflation adjusted cancer treatment spending per prevalent case increased 18%. In 2004, cancer spending per prevalent case ($6862) was on par with per-capita total health care spending ($6492). CONCLUSION: Per-capita health care spending has increased significantly over the past two decades in comparison to cancer spending per prevalent case. Prevalence-based costing acknowledges that the direct costs of cancer care in any given year are attributable to new and previously diagnosed cancer patients. Our analysis underscores the importance of evaluating spending on cancer care in the context of overall health care spending, cancer survival rates, and disease prevalence.

**PCN92**

THE WAR ON CANCER: AN ECONOMIC EVALUATION OF RECENT GAINS IN CANCER SURVIVAL

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OBJECTIVE: Cancer continues to be a leading cause of death, but the last few decades have seen many changes in the diagnosis and treatment of the disease. In this study, we estimate the economic value of gains in cancer survival over the last 20 years, separate these gains into the portions due to improvements in treatment and detection, and determine the extent to which the economic value of gains in cancer survival have been divided between patients and firms. METHODS: Using methodology developed by Philipson and Jena (2003), we estimated the economic value of gains in cancer survival between 1990 and 2000. We then used estimates from the literature to calculate expenditures on cancer treatment, thereby allowing us to determine how the social value of gains in cancer treatment has been divided between patients and firms. RESULTS: The value of survival gains for all cancers combined was worth roughly $28,000–$30,000 per cancer patient, and most (78–88%) of this gain has been driven by improvements in treatment. For all cancers combined, improvements in cancer survival between 1990 and 2000 had a social value of roughly $1.6–$1.9 trillion, and health care providers were able to appropriate 6–19% of this total, with the rest accruing to patients. CONCLUSION: The social value of recent gains in cancer survival is very large. Most of this gain has been driven by improvements in cancer treatment, and has been appropriated by patients, not health care providers.

**PCN93**

THREE SCIENTIFIC PARADIGMS IN HEALTH TECHNOLOGY ASSESSMENT: EXPERIENCES OF THE COMMITTEE TO EVALUATE DRUGS IN ONTARIO, CANADA

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OBJECTIVE: To describe how decision making in the Cancer Subcommittee of the Ontario Committee to Evaluate Drugs (responsible for deciding which novel and costly cancer drugs will be funded in Ontario) is evolving along three scientific paradigms. METHODS: We describe how these paradigms shape both criteria and process of decision making. We also systematically reviewed meeting transcripts to analyze decisions made in 2006. RESULTS: Evidence Based Medicine (I) is part of decision making through rigorous evidence reviews and the implicit rule that drugs must pass the threshold of effectiveness to be funded. Although drugs must pass one evidence threshold to be licenced in Canada, higher standards are required for reimbursement (e.g. phase III controlled trial data, peer reviewed publication). Health economic criteria (II) are assuming greater weight in decision making, as the review process is standardized, committee members become more economically literate, and a cancer pharmacoeconomics unit is established. The process of decision making (versus decision criteria) is evolving using the ethical foundations of Accountability for Reasonableness (III), important tenets of which are transparency, accountability, and stakeholder involvement in the decision process. Review of the 2006 decisions showed that 16 of 37 drugs were funded (43%). Among negative funding decisions 86% were characterized by inadequate evidence (main reason in 43%), 71% were characterized by cost effectiveness concerns (main reason in 15%), and 5% by ethical concerns (main reason in 5%). Forty-eight percent of decisions were multifactorial. CONCLUSION: Each paradigm used to make cancer drug funding decisions comes from a distinct intellectual tradition. Most decisions in 2006 were based on more than one paradigm. We believe that optimal decision making for cancer drugs involves integrating concepts from all traditions, involving both distinct decision criteria and decision processes. Integration requires judicious tradeoffs between both efficiency and equity, and evidence quality and efficiency/equity.

**PCN94**

PREDICTORS OF TREATMENT CHOICE IN HIGH RISK AND METASTATIC MELANOMA: EVIDENCE FROM LINKED ELECTRONIC MEDICAL RECORDS AND ADMINISTRATIVE CLAIMS DATA

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OBJECTIVE: Evaluate predictors of four major therapeutic choices (surgery, radiation, chemotherapy, immunotherapy) in...