OBJECTIVES: Patients with advanced nonsmall cell lung cancer have been treated more intensively over the past decade. We sought to see how changes in treatment intensity influenced survival and costs over time. METHODS: Patients ages 65+ diagnosed with early stage primary lung cancer were identified from the SEER-Medicare database, a national clinical cancer registry linked to Medicare claims files. Individuals were included if they were diagnosed with locally advanced or metastatic (TNM stages Ib and IV) NSCLC between January 1, 1994 and December 31, 2001. Kaplan-Meier survival curves were fitted for cohorts diagnosed each year from 1994 to 1999. Lifetime medical costs were calculated for each chemotherapy group using the Kaplan Meier sample average estimator. To determine whether there was a trend in costs over time, a regression model was fitted to lifetime cost estimates for each successive cohort. RESULTS: A total of 14,875 patients met inclusion criteria (approximately 2300 per year): 7411 (49.8%) stage IIb and 7464 (50.2%) stage VI at diagnosis. Proportion of patients receiving procedures in the first three months from diagnosis in 1994 and 1999 were as follows: no procedure: 38%, 31%; surgery: nine percent (9%), seven percent (7%); radiation therapy: 47%, 48%; chemotherapy: 27%, 43%. Survival for patients diagnosed in 1994 was 24% at 12 months and 11% at 24 months. Survival for those diagnosed in 1999 was 27% at 12 and 12% at 24 months (log rank test for equality, p = 0.57). In constant dollars, lifetime costs per patient increased from $26,000 to $42,000 over this time period (OLS regression for time trend: \( p = 0.002 \)). CONCLUSIONS: Costs of care for patients with advanced NSCLC diagnosed between 1994 and 1999 increased 62% with no change in survival over this time period. Chemotherapy use accounted for the majority of the increases in treatment intensity and cost.

CANCER

TRENDS IN OUTCOMES AND COSTS FOR U.S. PATIENTS WITH ADVANCED NON-SMALL LUNG CANCER 1994-2001
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OBJECTIVES: Patients with advanced nonsmall cell lung cancer have been treated more intensively over the past decade. We sought to see how changes in treatment intensity influenced survival and costs over time. METHODS: Patients ages 65+ diagnosed with early stage primary lung cancer were identified from the SEER-Medicare database, a national clinical cancer registry linked to Medicare claims files. Individuals were included if they were diagnosed with locally advanced or metastatic (TNM stages Ib and IV) NSCLC between January 1, 1994 and December 31, 2001. Kaplan-Meier survival curves were fitted for cohorts diagnosed each year from 1994 to 1999. Lifetime medical costs were calculated for each chemotherapy group using the Kaplan Meier sample average estimator. To determine whether there was a trend in costs over time, a regression model was fitted to lifetime cost estimates for each successive cohort. RESULTS: A total of 14,875 patients met inclusion criteria (approximately 2300 per year): 7411 (49.8%) stage IIb and 7464 (50.2%) stage VI at diagnosis. Proportion of patients receiving procedures in the first three months from diagnosis in 1994 and 1999 were as follows: no procedure: 38%, 31%; surgery: nine percent (9%), seven percent (7%); radiation therapy: 47%, 48%; chemotherapy: 27%, 43%. Survival for patients diagnosed in 1994 was 24% at 12 months and 11% at 24 months. Survival for those diagnosed in 1999 was 27% at 12 and 12% at 24 months (log rank test for equality, p = 0.57). In constant dollars, lifetime costs per patient increased from $26,000 to $42,000 over this time period (OLS regression for time trend: \( p = 0.002 \)). CONCLUSIONS: Costs of care for patients with advanced NSCLC diagnosed between 1994 and 1999 increased 62% with no change in survival over this time period. Chemotherapy use accounted for the majority of the increases in treatment intensity and cost.

CVIII

PHARMACOECONOMIC CONSEQUENCES OF PRIMARY AND SECONDARY PREVENTION OF CARDIOVASCULAR DISEASES IN THE CZECH REPUBLIC
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OBJECTIVES: After 1990, it was recognised that the male population’s life expectancy increased relatively quickly. This elongation was significant in decreasing the mortality rate from diseases of the circulatory system, mainly ischemic heart diseases. METHODS: Regression cost analysis was used for analysis of databases such as OECD Health Data, The Ministry of Health and Statistic institution of the Czech Republic. RESULTS: From the analysis it is evident that decreasing the concentration of cholesterol in blood plasma of the Czech population (mainly HDL cholesterol), an exponential increase in the number of people undergoing cardio surgery and consumption of modern effective drugs have all had positive effects. Use of antihypertensives in the years 1994–2003 has increased by more than ten times. Moreover, use of serum lipid reducing agents has increased significantly by more than 15 times since 1995. In 2002 pharmaceutical expenditures totaled 48,032 billion Czech crowns (1501 € billion). Use per inhabitant was 4681 Czech crowns (151 €). Cardiovascular drug use was 19.6% of total volume of drugs in the year 2002. To save one year life in the general population aged 0–69 years as a result decreasing mortality of ischemic heart disease, marginal costs for drugs for cardiovascular diseases was 185,000 Czech crowns (5968€). CONCLUSIONS: Drugs for the treatment of the circulatory system play a significant role in drug policy. The rate of reimbursement drugs from public resources remains controversial and problems regarding drug policy in the Czech Republic have not yet been resolved.

CN2

COST-EFFECTIVENESS ANALYSIS OF RITUXIMAB + CHOP VERSUS CHOP IN PATIENTS WITH AGGRESSIVE NON-HODGKIN LYMOPHMA
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1PBE Consulting, Verona, VR, Italy; 2Università di Milano, Milano, Italy

OBJECTIVES: Aim of this study was to evaluate cost-effectiveness of rituximab + CHOP (R-CHOP) versus CHOP, in patients affected by aggressive Non-Hodgkin lymphoma, in the Italian NHS’ perspective. METHODS: The economic analysis is based on an existing Markov model which was developed in order to evaluate costs and effects for two hypothetical cohorts of patients of age respectively higher and lower than 60 years, over a time frame of 15 years after administration of chemotherapy. The model is based on 5 health states (start therapy, complete response, no response, progression, death) and combines efficacy data from published clinical trials (GELA-98-5) with utilities from the literature and cost of therapies and medical follow-up after chemotherapy, based on Italian treatment patterns. Costs and effects were discounted respectively at 6% and 1,5%. Extensive 1-way and Monte Carlo sensitivity analyses were conducted in order to test the robustness of results. RESULTS: For the 2 cohorts (60+; 60–), incremental discounted Life Years Gained with R-CHOP versus CHOP were respectively 1.08 and 1.02 years; incremental QALYs were 1.15 and 1.04; the incremental cost/patient was 14.838€ and 13.938€; the incremental cost/LYG was therefore 13.732€ and 13.717€ and the incremental cost/QALY was 12.879€ and 13.362€, respectively for 60+ and 60– patients. CONCLUSIONS: The clinical advantage of R-CHOP is supported by incremental cost/LYG and cost/QALY ratios which fall well below all the thresholds commonly indicated for these values both in the international and Italian literature. R-CHOP is a substantial improvement in the treatment of