Spending More for Lung Cancer Treatment Did Not Substantially Increase Patients' Lives

Atlanta 2007/10/22 -A new study finds that survival for elderly patients with lung cancer has changed little despite large increases in healthcare expenditures for lung cancer treatment. The study by Harvard University, National Cancer Institute, and National Bureau of Economic Research researchers, published in the December 1, 2007 issue of CANCER, a peer-reviewed journal of the American Cancer Society, finds that average life-expectancy rose by less than one month between 1983 and 1997, while costs rose by over $20,000 per patient.

Lung cancer remains the top cause of cancer death in the United States, with an estimated 160,390 deaths expected to occur in 2007.

The U.S. spends more than five billion dollars a year on detection, determining the disease severity, and treatment of lung cancer. This is a significant increase over the last few decades, mirroring similar increases in general healthcare spending over the same period. The one-year survival rate for lung cancer has increased slightly, from 37 percent in 1975-1979 to 42 percent in 2002, largely due to improvements in surgical techniques and combined therapies. However the five-year survival rate for all stages of lung cancer combined has remained relatively stable, and is currently only about 16 percent.

Dr. Rebecca Woodward and her colleagues linked and analyzed non-small cell lung cancer survival data from the National Cancer Institute’s Surveillance, Epidemiology, and End Results (SEER) database and Medicare Parts A and B reimbursement data from the Continuous Medicare History Sample File (CMHSF) database. Their objective was to examine changes in treatment costs and outcomes for localized, regional and metastatic lung cancer from the early 1980s to the mid-1990s.

Cost-effectiveness, as measured by the cost of an additional year of life gained, was poor, with a high average cost of $403,142. While early stage cancer treatment was more cost-effective by conventional standards than treatments for advanced disease, the gains still were limited. When analyzed by disease severity, the cost per additional year gained for local and regional disease was $143,614 and 145,861, respectively. For metastatic cancer, the cost per additional year gained was $1,190,322.

Dr. Woodward and her co-authors conclude, "The additional money spent on lung cancer treatment in the mid-1990s compared to in the early 1980s did not result in a favorable economic rate of return by conventional benchmarks."

Article: "The Value of Medical Interventions for Lung Cancer in the Elderly: Results from SEER-CMHSF," Rebecca M. Woodward, Martin L. Brown, Susan T. Stewart, Kathleen A. Cronin, David M. Cutler, CANCER; Published Online: October 22, 2007 (DOI: 10.1002/cncr.23058); Print Issue Date: December 1, 2007.

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