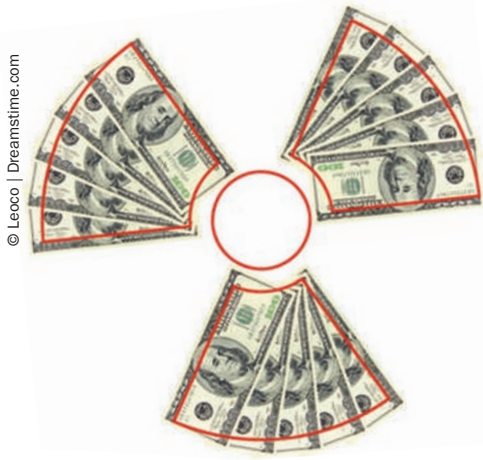


RADIOTHERAPY

NSCLC treatment—reducing costs and improving outcomes



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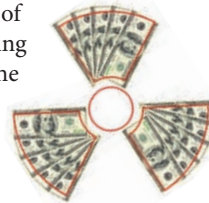
Increasing evidence has shown that stereotactic body radiotherapy (SBRT) can improve local control rates compared with conventional fractionated radiotherapy (external beam radiotherapy; EBRT) for the treatment of medically inoperable non-small-cell lung cancer (NSCLC). Now, a new study has found that, in addition to improved local control and overall survival, treatment costs associated with SBRT are substantially lower than with EBRT.

For patients with medically inoperable NSCLC (who are typically elderly with

comorbidities), SBRT offers an attractive alternative to conventional EBRT. “One of the benefits of SBRT versus standard EBRT is the number of visits a patient needs to make for their treatment,” comments lead researcher Thomas Lanni Jr, from the William Beaumont Hospital, MI, USA. Indeed, SBRT is associated with a shorter overall treatment time and a smaller number of fractions compared with EBRT, which can potentially improve the patient’s quality of life.

To assist the decision-making process as to whether SBRT should be introduced as the new standard therapy for medically inoperable NSCLC, Lanni’s team compared treatment costs and outcomes in 86 patients with stage I NSCLC who received either SBRT or EBRT. Treatment costs were calculated according to the average number of fractions received by each patient. Hospital billing costs and patient reimbursement costs were also calculated.

The average number of fractions delivered during treatment was four in the patients treated with SBRT compared with 35 in patients treated with EBRT.



On this basis, the average cost of SBRT was approximately 22% cheaper than EBRT (US\$10,616 versus \$13,639). “The reduced treatment visits allows patients to potentially have lower insurance costs, indirect costs and/or lost wages from work,” notes Lanni.

In addition to reducing the direct and indirect costs associated with treatment for this patient population, overall survival and local control were notably higher in the SBRT group compared with the EBRT group. Overall survival at 36 months was 71% with SBRT versus 42% for EBRT, and local failure was nearly three times lower in the SBRT group (12% versus 34%).

“This study further validates that new technology can provide superior clinical outcomes while reducing the health care and indirect costs to the patient,” Lanni concludes.

Lisa Richards

Original article Lanni, T. B. Jr *et al.* Stereotactic radiotherapy reduces treatment cost while improving overall survival and local control over standard fractionated radiation therapy for medically inoperable non-small-cell lung cancer. *Am. J. Clin. Oncol.* doi:10.1097/COC.0bo13e3181ec63ae

