

An economic analysis of National Cancer Institute of Canada Clinical Trials Group (NCIC CTG) JBR.10, a randomized trial of adjuvant vinorelbine plus cisplatin versus observation in early stage non-small cell lung cancer (NSCLC)

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Background: NCIC CTG JBR.10 is among the landmark trials to establish 3rd generation platinum-based adjuvant chemotherapy as standard of care after complete resection of stages IB-II NSCLC, improving 5-year survival by 15% and median survival by 21 months (HR = 0.69, p = 0.02). The cost-effectiveness of adjuvant chemotherapy from the perspective of Canada's public health care system was undertaken in a retrospective analysis based on the JBR.10 study population.

Methods: Direct medical resource utilization data, from trial data of patients enrolled onto the BR.10 trial at the 5 largest accruing Canadian centers, were identified and collected retrospectively. Direct medical costs included treatment, hospitalization and procedures. Data were captured from the time of randomization until death or study closure (April, 2004). Non-medical direct and indirect costs were not included. Available costs are presented both with and without discounting at 5% per year. Costs (2005 \$CAN) were obtained from provincial sources. Average costs per treatment arm (adjuvant chemotherapy vs. observation) were calculated. Incremental cost effectiveness was calculated using linear regression of censored medical costs.

Results: Utilization data were collected from 172 patients (36% of the trial population), 85 randomized to observation and 87 to chemotherapy. The discounted mean cost of treatment during trial follow-up per patient in the observation arm is \$16,431 and \$17,922 per patient in the adjuvant chemotherapy arm (randomization until April 2004, median 5.5 years). The incremental cost effectiveness ratio is \$6625 per life year gained.

Conclusion: Adjuvant NSCLC chemotherapy is cost effective and compares favorably to other health care interventions.