

Cost utility in the United States of rituximab plus cyclophosphamide, doxorubicin, vincristine, and prednisone for the treatment of elderly patients with diffuse large B-cell lymphoma.

[Hornberger JC](#), [Best JH](#).

Department of Clinical Economics, Acumen LLC/The SPHERE Institute, Burlingame, California, USA.
jhornberger@acumen.llc.com

Abstract

BACKGROUND: Findings from the Groupe d'Etude des Lymphomes Adultes LNH 98-5 study showed that rituximab added to combined cyclophosphamide, doxorubicin, vincristine, and prednisone (CHOP) prolonged progression-free survival and overall survival in adults age ≥ 60 years with diffuse large B-cell non-Hodgkin lymphoma (DLBCL). The current study was conducted to investigate the incremental cost utility of the addition of rituximab to CHOP (R-CHOP) compared with CHOP alone.

METHODS: Clinical prognosis of the time to disease progression and death was estimated using published evidence from the LNH 98-5 study (n = 399 patients) that was linked mathematically to published long-term outcome data on patients with DLBCL. Drug-acquisition costs were based on published data from formulary pricing sources, and the costs of cancer surveillance and end-of-life care were based on published literature sources. The authors assessed cost utility as the difference in costs between R-CHOP and CHOP divided by the increase in expected overall survival adjusted for quality of life.

RESULTS: Over 5 years, it was projected that R-CHOP would prolong overall survival by 1.04 years. The mean cumulative cost of CHOP was 3358 dollars, and the mean cost of R-CHOP was 17,225 dollars, resulting in a cumulative net increase of 13,867 dollars. The posttreatment cancer surveillance cost for CHOP was 3950 dollars, compared with 5202 dollars for R-CHOP. It was estimated that R-CHOP would have a cost-utility ratio of 19,297 dollars per year of life gained compared with CHOP when adjusted for quality of life. R-CHOP remained cost effective over wide ranges of variables in sensitivity analyses.

CONCLUSIONS: Compared with CHOP alone, it was predicted that R-CHOP would be cost effective in elderly patients with DLBCL.

(c) 2005 American Cancer Society.

PMID: 15756658 [PubMed - indexed for MEDLINE]