

Cost-effectiveness analysis of rituximab combined with chop for treatment of diffuse large B-cell lymphoma.

[Best JH](#), [Hornberger J](#), [Proctor SJ](#), [Omnes LF](#), [Jost F](#).

Department of Pharmacy, University of Washington, Seattle, WA 98195, USA.

Abstract

PURPOSE: To estimate the cost-effectiveness from a French payer perspective of CHOP (cyclophosphamide, doxorubicin, vincristine, and prednisone) alone compared with CHOP plus rituximab (R-CHOP) for treatment of patients with diffuse large B-cell lymphoma.

METHODS: Mean patient survival, days of hospitalization, and chemotherapy costs during treatment were estimated from a Phase III trial in France, Belgium, and Switzerland. Survival during the trial was estimated using the Kaplan-Meier method; survival beyond the trial period was projected based on mortality rates from the Scottish and Newcastle Lymphoma Group database. French diagnosis-related group (DRG) payment schedules were applied to trial data to estimate cost of adverse events and drug administration. We estimated survival and cost-effectiveness [the incremental cost per quality-adjusted life-year (QALY) gained] from 4 years (median clinical trial follow-up period) to 15 years, discounted at a fixed annual rate of 3%. We used published patient preferences. We converted currency to euros, based on 2003 exchange rates.

RESULTS: R-CHOP resulted in a 20.6% relative increase in complete response rate (absolute increase from 63% to 76%), and a 31% decrease in risk of death at 4 years (95% CI 8-49%). Over a 15-year time horizon, mean overall survival (OS) duration was estimated to be 6.90 years for R-CHOP and 5.74 years for CHOP, a mean increase in OS of 1.16 years (or 1.07 QALYs). Total direct medical costs were 13,170 euro higher with R-CHOP, with an incremental cost-effectiveness ratio of 12,259 euro per QALY gained.

CONCLUSION: R-CHOP significantly increases mean OS up to 4 years compared with CHOP, and its cost-effectiveness ratio compares favorably with other oncology treatments in widespread use.

PMID: 16091023 [PubMed - indexed for MEDLINE]