

Targeted literature review of cost-effectiveness models in relapsed/refractory follicular lymphoma

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ABSTRACT

Objective: To identify cost-effectiveness models (CEMs) used in relapsed/refractory (R/R) follicular lymphoma (FL), including global published studies and recent health technology assessment (HTA) reports.

Methods: A targeted literature review was conducted to identify CEMs evaluating treatments for R/R FL for adults aged ≥ 18 years. The Medline database and HTA reports from the Canadian Agency for Drugs and Technologies in Health (CADTH), National Institute for Health and Care Excellence (NICE), Pharmaceutical Benefits Advisory Committee (PBAC), and Scottish Medicines Consortium (SMC) websites were searched to retrieve publications in English from 2018-2023. Data on key model assumptions, results, HTA agency critiques, and company responses (in CADTH, NICE, PBAC, and SMC reports) were extracted.

Results: Sixteen studies (4 globally published studies, 4 NICE technology appraisals [TAs], 4 CADTH reports, 3 SMC reports, 1 PBAC report) were included in the review (total 17 CEMs). The most used approach was the partitioned survival model ($n=12$), with a lifetime horizon. Model cycle length varied from 1 week to 3 months, with the majority ($n=7$) adopting a monthly cycle. Commonly used health states were progression-free, progressive disease, and death ($n=12$). However, 1 of the published studies in Canada used a Markov model approach with different health states: remission, relapse, refractory, and death. Treatments in NICE TAs (bendamustine + obinutuzumab [BO]) and CADTH reviews (axicabtagene ciloleucel, tisagenlecleucel, BO) were recommended for R/R FL in the UK and Canada, respectively, with ICERs ranging from £15,587-£17,322 and \$62,833-\$544,875, respectively. Key HTA recommendations on CEMs included incorporating relevant comparators, conducting robust model validation, using trial utility data and validating them with general population utility and literature, appropriately modeling treatment effect duration, systematically choosing parametric distributions for long-term extrapolation, and presenting various scenarios.

Conclusion: This review synthesizes the existing CEM literature and highlights the need for robust future economic evaluations in R/R FL.