

Cemiplimab in combination with chemotherapy as first-line treatment in locally advanced or metastatic non-small-cell lung cancer in patients with PDL-1 expression ≥1%: comparison vs. therapeutic alternatives.

A. AGUADO-PARECES1, J. CORDERO2, R. CASTILLEJO-GARCÍA2, L. MARTIN-CASADO1. HOSPITAL UNIVERSITARIO VIRGEN MACARENA, HOSPITAL PHARMACY, SEVILLE, SPAIN. EXTREMADURA PHARMACEUTICAL MANAGEMENT, MERIDA, SPAIN.



Background and importance

Jaime.cordero.sspa@juntadeandalucia.es

Cemiplimab, combined with chemotherapy, is a promising first-line treatment for locally advanced or metastatic NSCLC with PDL-1 \geq 1%.

Aim and objectives

The primary aim of this study is to conduct a network meta-analysis (NMA) of therapies for locally advanced or metastatic non-small cell lung cancer (NSCLC) in patients with PDL-1 expression $\geq 1\%$, focusing on the efficacy and safety of Cemiplimab in combination with chemotherapy compared to alternative first-line treatments.

Material and methods

A comprehensive search was conducted in PubMed to identify phase 3, randomized, double-blind, controlled clinical trials that included alternative therapies used in the treatment of patients with locally advanced or metastatic non-small cell lung cancer (NSCLC) with PDL-1 expression $\geq 1\%$. The primary outcome variable considered for analysis was overall survival (OS).

A network meta-analysis (NMA) was then performed using a Bayesian model with the statistical software R. This approach allowed for indirect comparisons between Cemiplimab in combination with chemotherapy and the selected alternative therapies. Cemiplimab was used as the reference treatment in all comparisons to evaluate its relative efficacy in terms of survival.

Results

On June 6, 2024, a literature search was conducted in Medline using the following search criteria: (Therapy/Narrow[filter]) AND (cemiplimab) AND (chemotherapy) AND (non-small cell lung cancer). This search yielded a total of 7 results.

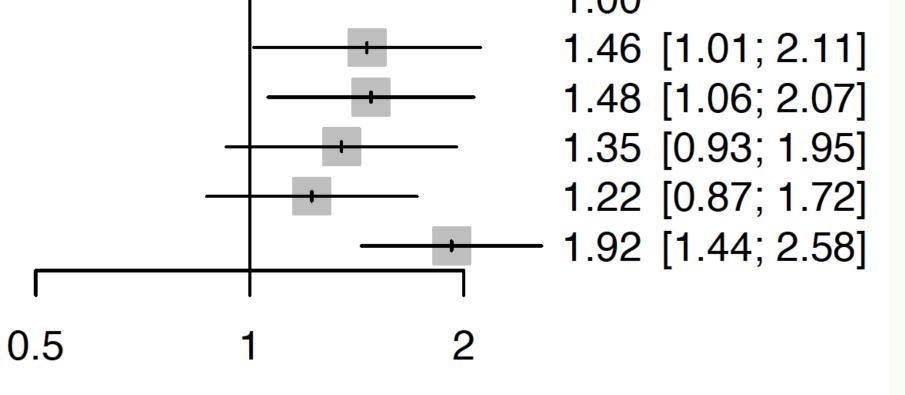
The overall survival analysis compared Cemiplimab in combination with chemotherapy (QT) with various alternative therapies for patients with NSCLC. A common effects model was used, and results were expressed as Hazard Ratios (HR), comparing the alternative therapies against Cemiplimab_QT.

The results are as follows:

Conclusion and relevance

Comparison: other vs 'cemiplimab + QT'			
Treatment	(Common Effects Model)	HR	95%-CI
Atezolizumab + bevacizumab + QT		1.38 [(0.96; 2.00]
Atezolizumab + QT		1.41 [1.00; 1.99]
cominlimate $\pm OT$		1 00	

Durvalumab-tremelimumab + QT Nivolumab–Ipilimumab Nivolumab–Ipilimumab +QT Pembrolizumab + QT QT Basada en Pt



The results highlight that, compared to Durvalumab-tremelimumab and nivolumabipilimumab, Cemiplimab achieved a more favorable overall survival, especially when compared to platinum-based chemotherapy, which had the highest risk of death (HR = $\frac{1}{2}$ 1.92).

29th EAHP CONGRESS. MARCH 2025. COPENHAGUEN. PERSON CENTRED PHARMACY – NAVIGATING DIGITAL HEALTH #EAHP2025