

# Cost Analysis Of Treatment Sequences For Recurrent/Metastatic Head And Neck Cancer In The Spanish National Health System

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## CONCLUSION

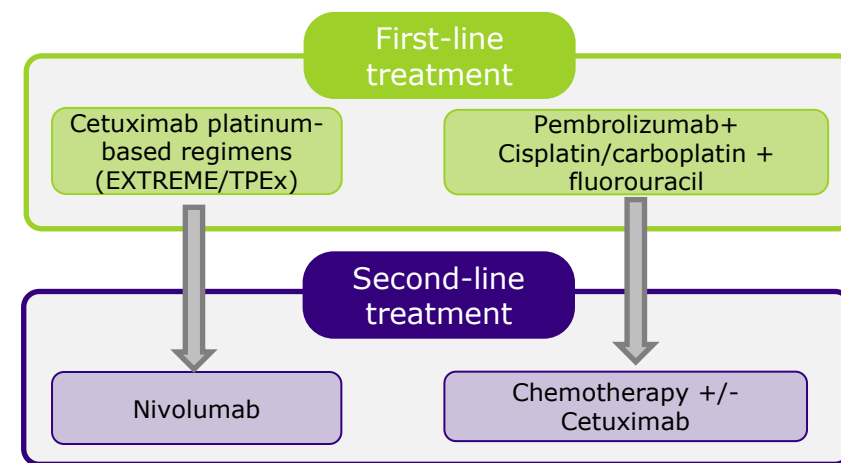
- In Spain, from the treatment sequences analyzed for R/M SCCHN, considering discounted drug prices to better reflect NHS acquisition prices:
  - Sequences EXTREME+2L or TPEX+2L were the ones with the lowest cost
  - These sequences accounted for a cost per month below commonly used WTPt
- Results were consistent in all scenarios analyzed
- The use of sequences starting with Cet based regimens could be an efficient management strategy that generates savings and therefore contributes to the sustainability of the NHS in Spain
- Results should be interpreted cautiously as it is a theoretical model, which means a simplified simulation of reality



## INTRODUCTION

- In Spain, platinum fit patients with recurrent/metastatic head and neck cancer (R/M SCCHN) may be treated with sequences starting with cetuximab (Cet) platinum-based regimens (EXTREME/TPEX), followed by nivolumab, or, more recently approved, pembrolizumab + cisplatin/carboplatin + fluorouracil (PF) followed by chemotherapy (CT) +/- Cet\*. The EXTREME regimen combines Cet + PF, while the TPEX regimen combines Cet + cisplatin + docetaxel
- While the sequences starting with Cet based regimens followed by immunotherapy represent the therapeutic alternatives with the longest overall survival (OS) published to date in R/M SCCHN, the financial impact of these OS estimates remains unexplored
- Median OS (mOS) for patients with R/M SCCHN treated with sequences starting with EXTREME (EXTREME+2L) was 19.4 months, while for those treated with sequences starting with TPEX (TPEX+2L), a mOS of 21.9 months<sup>1</sup> was reported

Figure 1. Treatments sequences for R/M SCCHN for platinum fit patients.



## OBJECTIVES

1. Analyze the cost per patient for the available treatment sequences for R/M SCCHN for platinum fit patients in the Spanish National Health System (NHS)
2. Assess the cost per month of life gained for the sequences EXTREME+2L and TPEX+2L



## METHODS

- A model was developed to calculate the costs of sequences typically administered to platinum fit patients with R/M SCCHN, including first and second line
- An analysis of pharmaceutical costs associated with treatment sequences EXTREME+2L or TPEX+2L, or sequences starting with pembrolizumab + PF (PEMBRO+2L) was conducted, using official list prices. To calculate the cost of the second line for sequence PEMBRO+2L, a percentage of use was estimated at the AB and a weighted average was developed. mOS and duration of treatment (DoT)<sup>1,2,3,4</sup> were obtained from medical literature. For second line regimen CT + Cet based on taxanes\*\*, median PFS was assumed. Cost per month of life gained were calculated and compared with established willingness-to-pay thresholds (WTPt) commonly used by the Spanish NHS
- All clinical and economic parameters were validated through two advisory boards (AB), made up of 4 medical oncologists and 3 hospital pharmacists from different geographic areas to represent Spanish clinical practice
- In addition to the base case, two scenarios were conducted:
  - Scenario 1: Discounted prices and median OS and DoT (as in the base case)
  - Scenario 2: Discounted prices and mean OS and DoT. Mean OS were obtained digitizing Kaplan-Meier curves<sup>5</sup>, while mean DoT were taken from different clinical trials reports<sup>2,3,6</sup>. For second line regimen CT + Cet based on taxanes\*\*, same assumption applied in the base case



## RESULTS

### • Base Case

The sequences EXTREME+2L and TPEX+2L had an average total drug cost per patient of €26,497 and €30,269, respectively. Sequence PEMBRO+2L amounted to €71,241.

The cost per month of life gained amounted to €1,366 (sequence EXTREME+2L) and €1,382 (sequence TPEX+2L), remaining below the WTPt (€1,667 to €2,083 per month).

### • Scenario 1

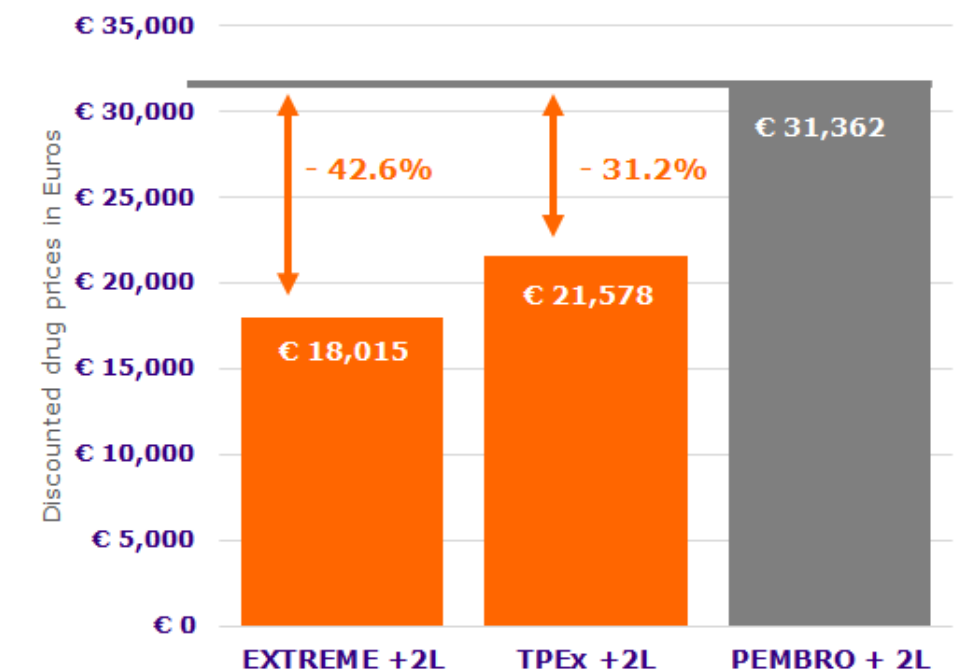
Sequences EXTREME+2L or TPEX+2L had a cost of €18,015 and €21,578, respectively, while the sequence PEMBRO+2L amounted to €31,362, which implies that sequences EXTREME+2L and TPEX+2L are 42.6% and 31.2% lower.

Moreover, cost per month of life gained amounted to €979 for sequence EXTREME+2L and €1,008 for sequence TPEX+2L, remaining below the WTPt, confirming robustness to the results of the base case.

Table 1. Cost per month of life gained for Scenario 1

	mOS (months)	Cost/month of life gained
EXTREME+2L	19.4	€979
TPEX+2L	21.9	€1,008
WTPt	-	€1,667 - €2,083

Figure 2. Scenario 1 (mOS and DoT with discounted drug prices)



### • Scenario 2

In Scenario 2, treatment costs for the sequences EXTREME+2L and TPEX+2L remained below the cost of the sequence PEMBRO+2L. Additionally, cost per month of life gained for sequences EXTREME+2L and TPEX+2L, remained below upper WTPt established by the Spanish NHS.

\*Keynote-048 has not published second line sequence data after immunotherapy.

\*\* Cetuximab is indicated in R/M SCCHN in combination with a platinum-based CT. Taxanes are currently not approved for R/M SCCHN.

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5. Guigay et al. TPEXtreme randomized trial: Quality of life (QoL) and survival according to second-line treatments in patients with recurrent/metastatic head and neck squamous cell carcinoma (R/M HNSCC). Poster presented at 2020 ASCO Annual Meeting; 2020; Virtual meeting.
6. Data on File: GORTEC 2014-01 TPEXtreme CSR Final December 2022

