

## COST MINIMISATION ANALYSIS IN CLINICAL PRACTICE OF RIBOCICLIB VERSUS PALBOCICLIB IN THE TREATMENT OF METASTASTIC BREAST CANCER

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### BACKGROUND AND IMPORTANCE

Palbociclib + letrozole and ribociclib + letrozole in HR+ and HER2 metastatic breast cancer (mBC) shows a similar efficacy in clinical trials: progression-free survival (PFS) = 27.6 months (CI95% 22.4-30.3) versus 25.3 months (CI95% 23.0-30.3), respectively. However, the costs may be different.

### AIM AND OBJECTIVES

To evaluate effectiveness and cost-treatment ribociclib versus palbociclib in mBC.

### MATERIALS AND METHODS

- Retrospective observational multicenter study that includes females who received palbociclib or ribociclib plus letrozole (January-2018 to January-2021) for mBC treatment in first palliative line.
- Demographic, clinical and cost variables were collected from the clinical history.
- Effectiveness was measured in terms of PFS and cost-treatment evaluation included: drug cost, hospital emergency visits, hospitalization, oncology consultations, blood test, urine test, microbiological analysis, CEA and C15.3 determination, CT scan, bone scan, derivation to other specialist due to adverse effects and high-cost drugs for the treatment of adverse effects.
- No temporary deductions in cost have been made.
- PFS was calculated by Kaplan-Meier estimator and contrasted by log-rank. For comparison between costs were used Mann-Whitney U test and the qualitative variables by Pearson's chi-square.

### RESULTS

Included patients characteristics, effectiveness and cost minimisation analysis

	Ribociclib + letrozole	Palbociclib + letrozole	
<b>Patients (n)</b>	20	15	
<b>Median age (years) (IQR)</b>	52.6 (46.2 - 65.9)	56.9 (50.8 - 75.3)	
<b>ECOG start therapy</b>			
0	12 (60.0 %)	7 (46.7 %)	
1	8 (40.0 %)	8 (53.3 %)	
<b>Exitus</b>	3 (15.0 %)	2 (13.3 %)	
<b>Dose reduction, (p=0.710)</b>	18 (56.3 %)	9 (46.7 %)	
by Neutropenia	15/ 18	7/ 9	
<b>Median PFS (years) (IQR)</b>	32.8 (18.5 - NE)	32.5 (17.8 - 67.5)	<b>+ 0.3, p=0.456</b>
<b>Median therapy cost/month treatment (€) (IQR)</b>	1876.0 (1497.6 - 2148.3)	2108.8 (1970.3 - 2367.1)	<b>- 232.8€, p=0.004</b>

The breakdown of the most important costs (for the rest the differences were minimal or could not be ruled out by chance)

Median cost per month of treatment (€) (IQR)	Ribociclib + letrozole	Palbociclib + letrozole	Signification
<b>Cyclin-inhibitor</b>	1369.2 (1099.0 - 1679.9)	1670.9 (1638.0 - 1760.4)	p=0.016
<b>Oncology consultations</b>	185.7 (107.4 - 287.4)	220.0 (180.0 - 301.0)	p=0.015
<b>Blood test</b>	8.6 (4.8 - 13.0)	12.6 (3.7 - 61.8)	p=0.012
<b>CEA and C15.3 determination</b>	16.2 (1.8 - 40.5)	19.4 (4.7 - 29.5)	p=0.049
<b>CT scan</b>	45.7 (18.1 - 71.6)	79.3 (30.7 - 159.4)	p=0.016

### CONCLUSION AND RELEVANCE

In our research, no statistically significant differences were observed in effectiveness of both treatments. In this context ribociclib + letrozole was the cheapest, where the biggest difference is in the cost of drug because of frequent (around 55%) dose reductions (reduction of 1 or 2 tablets).