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DO PAYERS EQUALLY VALUE THE COST PER MONTH OF OVERALL SURVIVAL FOR METASTATIC CASTRATION RESISTANT PROSTATE CANCER WITHIN THE EU5

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Introduction

- There have been several recent product launches for the treatment of metastatic castration resistant prostate cancer (mCRPC).
- The aim of this study was to assess the launch price of mCRPC treatments across the EU5 (France, Germany, Italy, Spain, UK) in relation to a standard clinical measure, overall survival (OS), to determine if payers equally value the cost per OS month for mCRPC treatments.
- Furthermore, the cost per month of additional OS benefit versus comparator was assessed.
- An analysis of cost/survival for prostate cancer treatments has been previously conducted in the US.[1]

Methods

- Zytiga, Xtandi, Jevtana and docetaxel were included in the analysis.
- Median OS, difference in median OS versus the control arm and average treatment duration were extracted from Phase III trial data for the products in each of their approved indications (Table 1).
- Launch retail prices across the EU5 were used to calculate the cost of an average treatment course for each product and indication.
- The total cost per average treatment course was divided by:
  - The average total OS to determine the cost/total OS month
  - The average OS gained versus the control arm to determine the cost/OS month gained over control

Table 1. Median OS of mCRPC treatments[2,3,4,5,6,7]

Product	Indication	Comparator	Median OS
Zytiga (abiraterone)	Pre chemotherapy	Placebo + prednisone	+ 4.4 months (34.7 vs 30.3)
	Post chemotherapy	Placebo + prednisone	+ 4.6 months (15.8 vs 11.2)
Xtandi (enzalutamide)	Pre chemotherapy	Placebo	+ 2.2 months (32.4 vs 30.2)
	Post chemotherapy	Placebo	+ 4.8 months (18.4 vs 13.6)
Jevtana (cabazitaxel)	mCRPC previously treated with docetaxel + prednisone	Mitoxantrone + prednisone	+ 2.4 months (15.1 vs 12.7)
Docetaxel	mCRPC in combination with prednisone	Mitoxantrone + prednisone	+ 2.4 months (18.9 vs 16.5)

Results

Cost per total OS month (Figure 1)

- With the exception of Italy, the within market cost/OS month between recently launched products (Zytiga, Xtandi and Jevtana) and indications is closely aligned.
- Docetaxel consistently offered the lowest cost/OS month across the EU5 with a median cost of €531/total OS month.
- For the pre-chemotherapy indications, Xtandi had the highest cost/OS month (€1,839 - €4,112) across the EU5.
- For post-chemotherapy indications, Zytiga had the highest cost/OS month (€1,820 - €2,904) except for Italy, where Xtandi was higher (€3,620).

Cost per OS month gained versus control (Figure 2)

- For Zytiga and Xtandi, the price/OS month, over control, for the pre-chemotherapy indication was substantially greater than that for the post-chemotherapy indications.
- The EU5 median cost/OS month for Zytiga was 1.8 times higher, versus control, for the pre-chemotherapy indication than post-chemotherapy indication, whilst for Xtandi it was 4.4 times higher. This implies that payers are willing to accept a higher cost per OS for the pre-chemotherapy indication than the post-chemotherapy indication.
- Jevtana's EU5 median cost of €11,322, for post-chemotherapy, was comparable to the cost/OS month gained over control for the pre-chemotherapy indications of Zytiga and Xtandi.

Variation by market

- Cost/total OS month and cost/OS month gained were relatively consistent across France, Spain, and the UK for each of the products at launch.
- German and Italian launch prices tended to be at a premium, particularly for Zytiga and Xtandi. However, they underwent significant price reductions following launch and are now more closely aligned with the other EU markets.

Figure 1. Launch cost/ total OS month

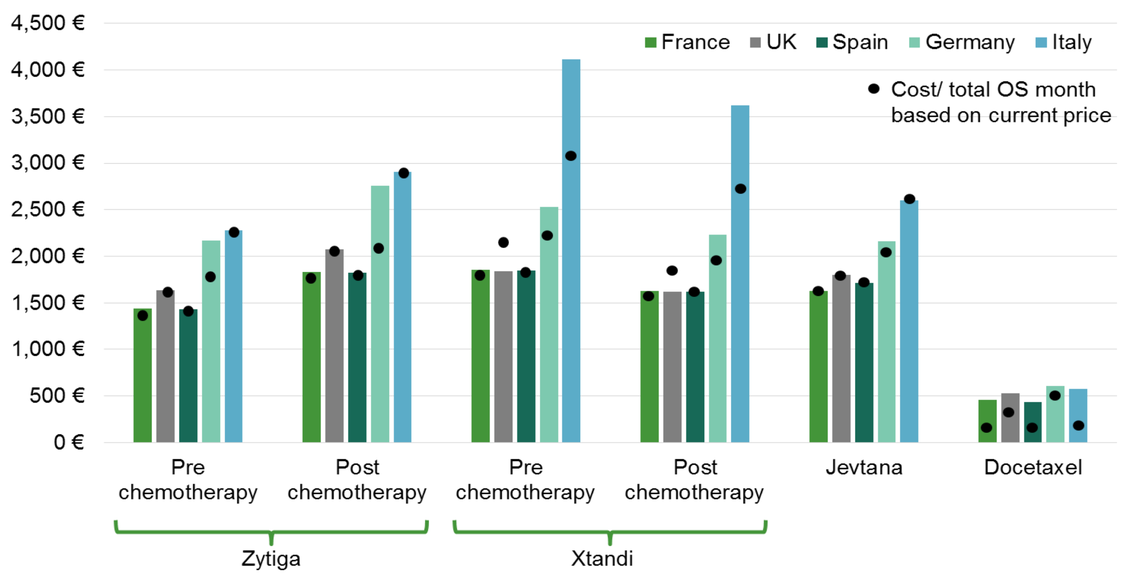
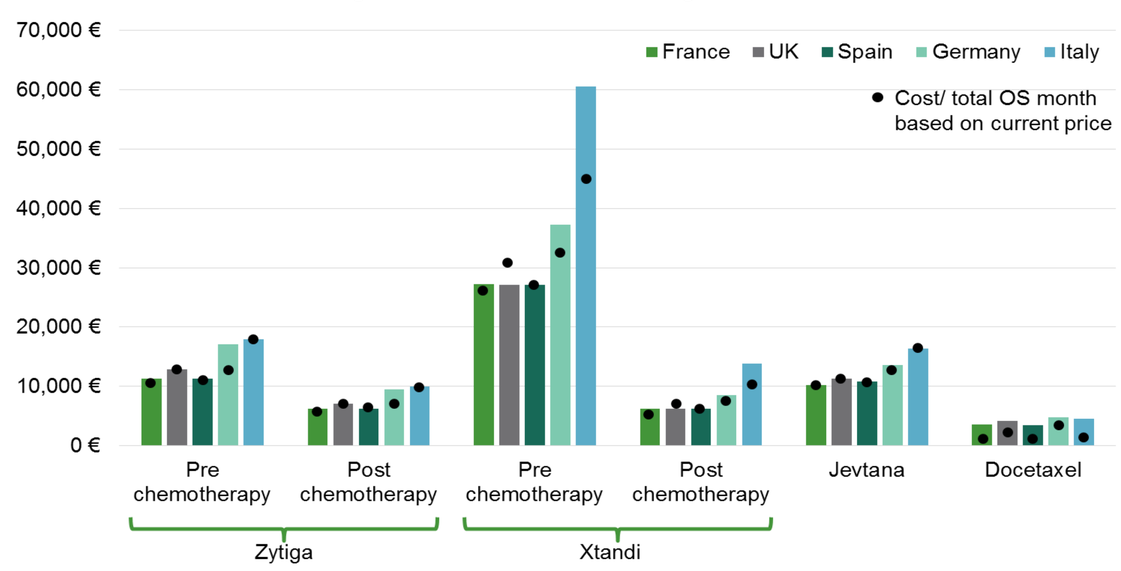


Figure 2. Launch cost/ OS month gained over control



Limitations

- The analysis was based on public launch prices. However, products will be discounted to enable patient access (e.g. France price volume agreements; Germany post AMNOG review; UK confidential patient access schemes), which are not included in this analysis.
- When assessing the cost per additional month of OS gained over control, the cost of the control arm has not been considered.
- Data from clinical trials may not be reflective of clinical outcomes actually seen in practice. However, the level of evidence utilised in this analysis would be comparable to that available to payers at the time of launch.

Discussion and Conclusion

- Zytiga and Xtandi prices were set based on post-chemotherapy indications. The increase in cost/OS observed for the pre-chemotherapy is due to clinical data (mainly treatment duration). It is unlikely that payers were willing to pay more for the pre-chemotherapy indication. As such, this study provides additional support to having variable drug prices based on clinical benefit for each indication.
- This study demonstrates that cost/OS month can be a useful tool that can be standardised across countries and potentially across tumours to easily compare the cost benefit of treatments. Such analysis may be useful at a national, regional, and local level to compare different treatments and help determine the optimal treatment in terms of clinical benefit and cost.

References

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