

# Access to [<sup>177</sup>Lu]Lu-PSMA-617 (<sup>177</sup>Lu-PSMA-617) in metastatic castration-resistant prostate cancer (mCRPC) in France: comparative analysis with cabazitaxel using national hospital data

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## KEY FINDINGS & CONCLUSIONS

- Though access to <sup>177</sup>LuPSMA-617 increased and doubled in 2023 compared to 2022, it remains limited in France.
- Receiving the last chemotherapy in a non-RLT center and geographic distance from RLT centers are key major identified barriers to equitable access to <sup>177</sup>LuPSMA-617.
- <sup>177</sup>LuPSMA-617 is associated with lower hospitalization rates and transfusion needs than cabazitaxel.
- Further in-depth investigations of other factors influencing the access to <sup>177</sup>LuPSMA-617 are needed to fully understand barriers and enablers influencing this access in France, and to guide future policy decisions.

## INTRODUCTION

- [<sup>177</sup>Lu]Lu-PSMA-617 (<sup>177</sup>Lu-PSMA-617) radioligand therapy is now part of the standard treatment options after docetaxel in mCRPC, alongside cabazitaxel according to the guidelines of the French National Authority for Health<sup>1</sup>.
- Yet, implementing RLT poses challenges due to the need for specialized infrastructure and trained personnel<sup>2</sup>.
- Understanding access patterns and factors influencing the prescription of <sup>177</sup>LuPSMA-617 is essential to ensure timely and equitable access to RLT.
- The study aimed to investigate the access to <sup>177</sup>LuPSMA-617 in France and generate comparative data vs. cabazitaxel in real-world settings.

## RESULTS

### Access to <sup>177</sup>LuPSMA-617 in France [All patients]

**Table 1. Access rate (%) to <sup>177</sup>LuPSMA-617 [Mainland France]**

Year	Patients eligible for RLT	Patients treated with <sup>177</sup> LuPSMA-617 <sup>a</sup>	Access rate (%)	Number of RLT centers
2022	11,794	563	4.8%	28
2023	12,030	1,145	9.5%	37

RLT, Radioligand therapy.

<sup>a</sup>Patients with a prior history of chemotherapy administration for PC.

Note: ≤10 patients treated with <sup>177</sup>LuPSMA-617 in the French overseas departments and regions.

- Access rate to <sup>177</sup>LuPSMA-617 was 4.8% (n=563 patients, 28 centers) in 2022 increasing to 9.5% (n=1,145, 37 centers) in 2023 (**Table 1**).
- Centers involved in RLT in 2023 were either public university or regional hospitals (51.4%) or private non-profit institutions specialized in cancer care (45.9%).

### Comparative data vs. cabazitaxel [Sub-Population]

#### Study sub-populations:

- 523 patients initiated <sup>177</sup>LuPSMA-617 in 2022–2023 without prior treatment with cabazitaxel or RLT.
- These patients were compared to 2,875 patients who initiated cabazitaxel during the same period.

### Patient's characteristics

Patients initiating either <sup>177</sup>LuPSMA-617 or cabazitaxel were of similar:

- Age [mean age: 72.2 and 72.8, p = 0.087]
- Comorbidity burden [mean Charlson comorbidity index (CCI) score: 11.5 [both treatments], p=0.157].

## METHODS

- Retrospective population based-study using the French hospital discharge database (PMSI)** covering all hospitalizations in the French public and private sectors<sup>3</sup>.
- Annual access rate to <sup>177</sup>LuPSMA-617 was estimated in the population of adult patients and identified with ≥1 chemotherapy for prostate cancer (PC) between 2015 and 2023, used as a proxy for patients eligible for RLT.

$$\text{Access rate} = \frac{\text{Patients with } \geq 1 \text{ administration of } ^{177}\text{LuPSMA-617 in a given year}}{\text{Patients with } \geq 1 \text{ chemotherapy for PC in a given year or in the 7 years before}}$$

### Factors influencing the choice to initiate <sup>177</sup>LuPSMA-617

**Table 2. Factors associated with the initiation of <sup>177</sup>LuPSMA-617 vs. cabazitaxel (2022-2023)**

Variables	<sup>177</sup> LuPSMA-617 initiators (n=523) <sup>a</sup>	Cabazitaxel Initiators (n=2,875) <sup>b</sup>	aOR	p-value <sup>c</sup>
<b>Last chemotherapy for PC performed in a RLT center</b>				
No	289 (55.3%)	2,386 (83.0%)	Ref	
Yes	234 (44.7%)	489 (17.0%)	3.95 [3.14-4.95]	<.0001
<b>Distance between place of residence and nearest RLT center</b>				
[0-50 km[	280 (53.5%)	1,231 (42.8%)	Ref	
[50-100 km[	155 (29.6%)	902 (31.4%)	0.83 [0.64-1.06]	0.1282
100 km and more	88 (16.8%)	742 (25.8%)	0.75 [0.55-1.01]	0.0594
<b>Delay from first chemotherapy for PC to treatment initiation years</b>				
<1 year	221 (42.3%)	1,558 (54.2%)	Ref	
1-2 years	157 (30.0%)	753 (26.2%)	1.47 [1.15-1.88]	0.0019
≥2 years	145 (27.7%)	564 (19.6%)	1.96 [1.52-2.54]	<.0001

aOR, adjusted Odds Ratio.

Note: Model adjusted for age and the region of residence. Individual CCI comorbidities were not retained in the final model after the stepwise backward selection; the variables age was forced in the model despite non-significance.

<sup>a</sup>Patients initiating <sup>177</sup>LuPSMA-617 without prior treatment with cabazitaxel or other RLT.

<sup>b</sup>Patients initiating cabazitaxel without prior treatment with <sup>177</sup>LuPSMA-617 or other RLT.

<sup>c</sup>P-value of OR estimates.

## References

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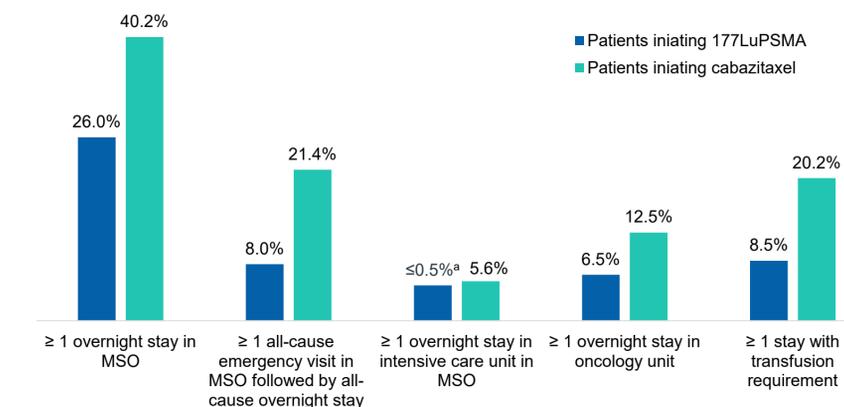
- The comparative analyses are focused on the subpopulation of eligible patients who initiated <sup>177</sup>LuPSMA-617 or cabazitaxel in 2022-2023, without prior treatment with either of the two therapies.
  - Descriptives analyses : patient's characteristics, hospitalization between each treatment administration
  - Multivariate analysis:
    - Logistic regression model to identify factors associated with treatment initiation with <sup>177</sup>LuPSMA-617 vs. cabazitaxel.

- Factors significantly associated with <sup>177</sup>LuPSMA-617 use included (**Table 2**):
  - Receiving the last PC chemotherapy in a RLT center (aOR: 4.0)
  - Having a delay ≥1 year from first PC chemotherapy to treatment initiation (1-2 years: aOR: 1.5, ≥2 years: aOR: 2.0)
- Living ≥100 km from a RLT center was associated with cabazitaxel use (aOR: 0.8) – aOR close to the statistical significance (**Table 2**).

### Hospitalization rates between each treatment administration

- Patients initiating <sup>177</sup>LuPSMA-617 were less frequently hospitalized between administrations than those initiating cabazitaxel (≥1 overnight: 26.0% vs. 40.2%, p<0.001) (**Figure 1**).
- They had also lower transfusion needs (8.5% vs. 20.2%, p<0.001).

**Figure 1. Hospital stays occurring between each treatment administration [2022-2023 years]**



MSO, Medical, surgical, or obstetric stays <sup>a</sup>Number ≤10 patients (GDPR rules).

Note: Statistical differences for all endpoints (p<0.05), except for "≥ 1 overnight stay in intensive care unit in MSO" (p=0.091).

## Disclosures

Denis Maillat: Financial Interests, Personal, Advisory Board: Novartis, J&J, IPSEN, Astellas, MSD, BMS, Pfizer, Merck, BAYER, AstraZeneca; Donatien Collet: Financial Interests, Personal, Full or part-time Employment: Novartis; Camille Wiart: Financial Interests, Personal, Full or part-time Employment: Novartis; Quentin Dardonville: Financial Interests, Personal, Full or part-time Employment: Novartis; Barbara Roux, Jade Vadel and Aurore Tricot have declared no conflicts of interest. Elske Quak: Financial Interests, Personal, Advisory Board: Novartis, Curium Pharma.



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