# Changes in therapeutic strategy in metastatic castration resistant prostate cancer (mCRPC) between 2012 and 2014 from the French nationwide claims database (SNDS)

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## Background

- Therapeutic strategy in metastatic castration-resistant prostate cancer (mCRPC) has evolved significantly with the introduction of new 1st-line treatments since the end of 2012:
  - Abiraterone acetate in association with prednisone/prednisolone in December 2012
  - Enzalutamide in November 2014

## Objectives

- To describe patients characteristics according to the 1st treatment lines in 2012 and 2014
- To describe treatment lines for mCRPC patients in 2012 an 2014
- To assess the therapeutic strategy changes for mCRPC between 2012 and 2014

## Materials & Methods

### Study design

- Two cohorts of mCRPC patients identified using a validated algorithm and initiating a mCRPC specific treatment with a 5-year history prior index date and a 3-year follow-up:
  - **2012 cohort**: patients initiating a 1st treatment line for mCPRC in 2012
  - **2014 cohort**: patients initiating a 1st treatment line for mCPRC in 2014

### Data source

- **SNDS**: National Healthcare System database covering the overall French population from birth (or immigration) to death (or emigration), including all reimbursed claims from all French healthcare insurance schemes *(e.g.* drugs, medical visits, medical visits, *etc.*), hospital-discharge summaries from French public and privates hospitals *(e.g.* diagnostic codes, procedures, *etc.*) and the National death registry
- Selection of patients ≥ 40 years, affiliated to the "*Régime Général*" insurance scheme (86% of French population) and having a complete healthcare historic

### Setting

- mCRPC 1st line treatments: **abiraterone acetate**, **docetaxel** or **enzalutamide,** all drugs presumed to be used according to the Summary of Product Characteristics
- Previous prostate cancer stages before mCRPC status defined according to the estimated date of castration resistance and the estimated date of 1st metastasis management:
  - non-metastatic hormonosensitive prostate cancer (nmHSPC)
  - metastatic hormonosensitive prostate cancer newly diagnosed (NDx mHSPC)
  - progressive metastatic hormonosensitive prostate cancer (progressive mHSPC)
  - non-metastatic castration resistant prostate cancer (nmCRPC)

## Conclusion

- ✓ **Between 2012 and 2014, the mCRPC 1st-line treatment shifted from docetaxel for 4 out of 5 patients to abiraterone acetate for 3 out of 5**
- ✓ **In 2014, docetaxel or enzalutamide were equally used in 2nd-line after abiraterone acetate**
- ✓ **Disease stage before mCRPC seemed to have more impact in the treatment choice in 2014 than in 2012**

***Declaration of interest statement:*** *The CAMERRA study is carried out by the Bordeaux PharmacoEpi platform in collaboration with Janssen® company and supervised by a Scientific Committee*

## Results

### Identification of 2012 and 2014 study population

- The algorithm, with a positive predictive value of 0.92, enabled the identification of respectively 11 668 prevalent mCRPC cases in 2012 and 12 951 in 2014. From them 2 921 patients initiated a first treatment for mCRPC in 2012 and 3 949 in 2014
- mCRPC prevalence may be slightly underestimated because of the sensitivity of the algorithm (76%)

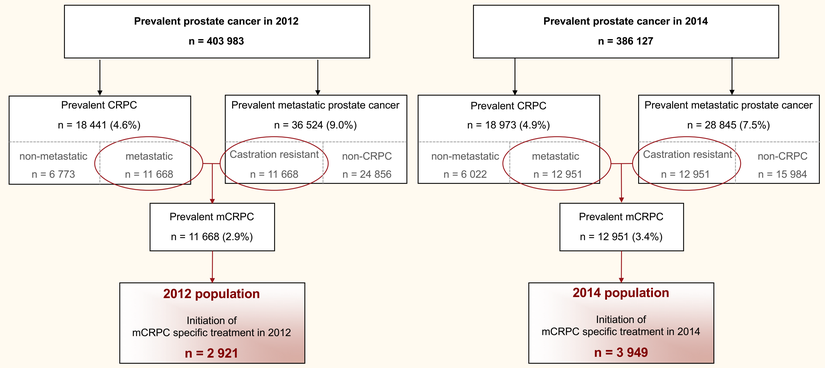


*Figure 1. Identification of population in 2012 and 2014 from SNDS database*

### Disease stage before mCRPC status

- Previous disease stages before mCRPC status barely changed between 2012 and 2014

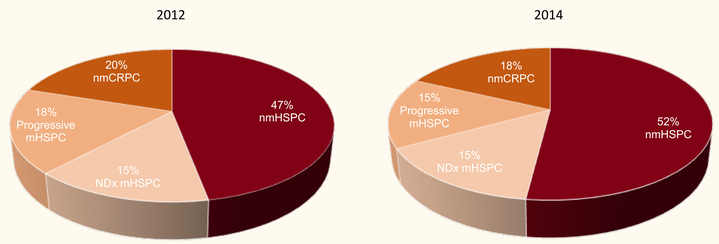


*Figure 2. Disease stage before mCRPC status in 2012 and 2014 CAMERRA populations*

### 1st treatment line in mCRPC patients

- The arrival of new therapeutic strategies has impacted mCRPC management: 8 out of 10 patients used docetaxel as 1st line in 2012 whereas they were only 3 out of 10 in 2014, most of the remaining patients used abiraterone acetate (Table 1)

*Table 1. First treatment line over the 3-year follow-up for 2012 and 2014 populations*

| | 2012 n = 2 921 | | 2014 n = 3 949 | |
|---|---|---|---|---|
| Docetaxel | 2 364 | (80.9) | 1 214 | (30.7) |
| Abiraterone acetate | 511 | (17.5) | 2 444 | (61.9) |
| Enzalutamide | 0 | (0.0) | 176 | (4.5) |

*Treatment line = at least 2 consecutive dispensing or infusion during follow-up*

### 1st treatment line according to disease stage before mCRPC status

- In 2012:
  - Docetaxel mainly used
  - Few variations according to the stage before mCRPC status
- In 2014:
  - Abiraterone acetate mainly used in patients with previous stage of progressive mHSPC, nmHSPC and nmCRPC stages
  - Abiraterone acetate and docetaxel equally used in patients in patients with previous stage of NDx mHSPC

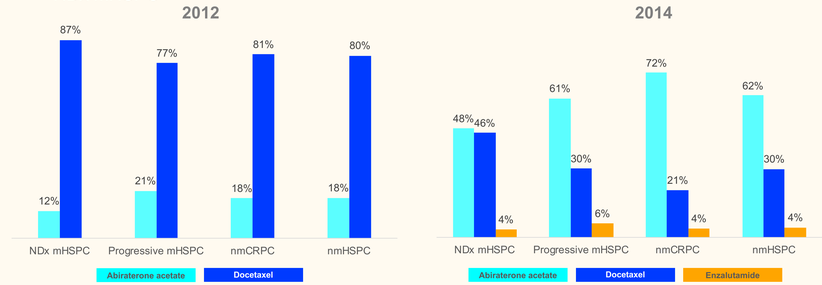


*Figure 3. 1st treatment line according to disease stage before mCRPC status in 2012 and 2014*

### Sequences of mCRPC treatment lines

- Over the 3-year follow-up, 63% of 2012 population and 58% of 2014 population received a 2nd mCRPC treatment line (Figure 4):
  - In 2012: the 2nd line was abiraterone acetate for 83% of the concerned patients
  - In 2014: the 2nd line were enzalutamide and docetaxel for respectively 41% and 31% of the concerned patients

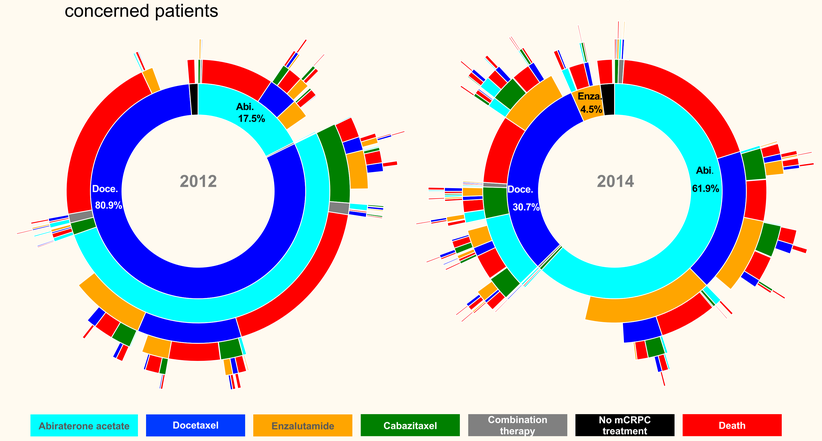


*Figure 4. Sequences of mCRPC treatment lines over the 3-year follow-up in 2012 and 2014 populations*