

# Clinically Significant Events Associated With Metastatic Castration-Resistant Prostate Cancer (mCRPC) Treatments

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# Introduction

- Although there is a critical need to understand the treatment patterns for mCRPC, real-world evidence is still scarce due to the lack of a specific ICD-10 code denoting this subset of prostate cancer patients
- A specific algorithm was created to identify this patient subset in a large administrative claims database
- We describe the association between clinically significant events (CSEs) and mCRPC treatments in US-insured patients

CSE, clinically significant event; ICD-10, International Classification of Diseases, 10<sup>th</sup> Revision; mCRPC, metastatic castration-resistant prostate cancer.

# Methods

## Data Source and Patient Population

Patients with claims from January 2008 to March 2019 were selected from a large administrative claims database\*  
Male patients were included who met the following criteria:

- $\geq 1$  claim for prostate cancer
- $\geq 1$  claim with code for pharmacologic or surgical castration
- Incident metastatic disease during the identification period
- $\geq 6$  months of continuous enrollment before and after the index date (first metastatic disease claim)

## Follow-up

Patients were followed until death, end of study, or disenrollment

During the follow-up period, CSEs were ascertained

## CSE Assessment

Claims-based algorithms were used to identify patients with mCRPC, lines of therapy (LOTs), and CSEs of interest

CSEs were assessed in the first LOT that included an mCRPC regimen

## Analysis

Time on treatment was used as a person-time denominator to assess rates of CSEs per 365 days (treatment year) to control for differing times on treatment regimens

\*Optum Research Database, which includes enrollment information and medical/pharmacy claims for >73 million enrollees with commercial coverage and 8.3 million enrollees with Medicare Advantage medical and Part D pharmacy coverage.

CSE, clinically significant event; LOT, line of therapy; mCRPC, metastatic castration-resistant prostate cancer.

# Results

**Out of 3690 identified patients with mCRPC, 85% (3150/3690) received  $\geq 1$  LOT**

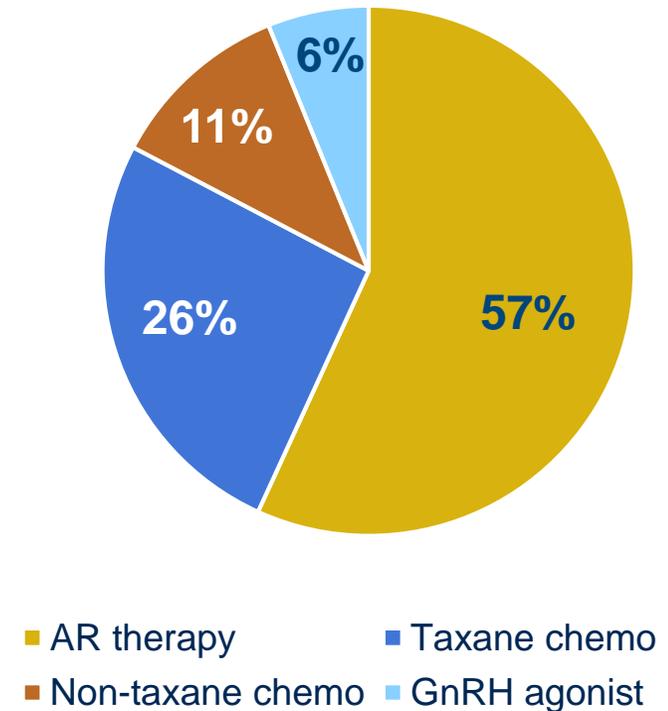
- 53% of those patients (1680/3150) received a regimen indicated for mCRPC

**1677 patients\* were able to be categorized into 4 mutually exclusive groups based on regimen:**

- **AR therapy**, n=953 (57%)
- **Taxane chemo**, n=434 (26%)
- **Non-taxane chemo**, n=187 (11%)
- **GnRH agonist**, n=103 (6%)

**Average follow-up time was 705 days**

**mCRPC Treatment Regimens (N=1677)**

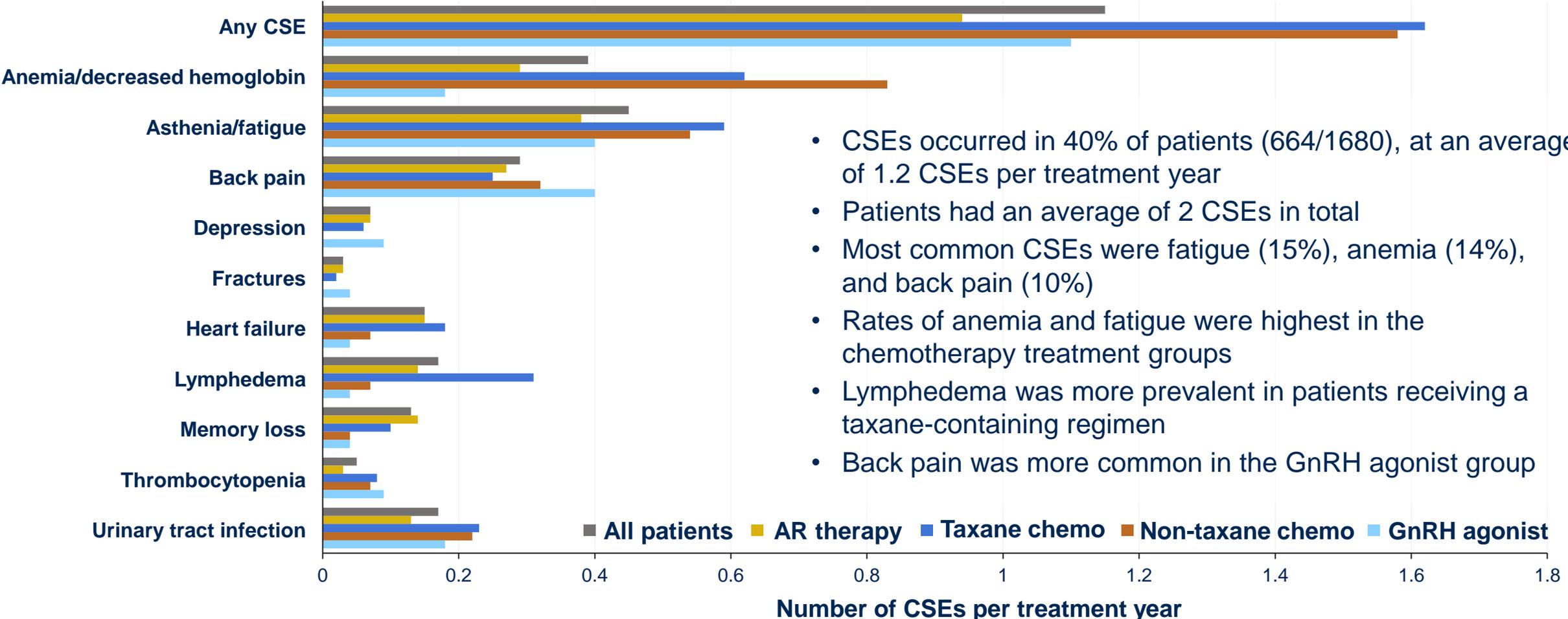


\*3 patients had both AR therapy and chemotherapy and, therefore, were excluded from subgroup analysis.

AR, androgen receptor; chemo, chemotherapy; GnRH, gonadotropin-releasing hormone modulator; LOT, line of therapy; mCRPC, metastatic castration-resistant prostate cancer.

# Results

## Rates of CSEs per Treatment Year by Treatment Group



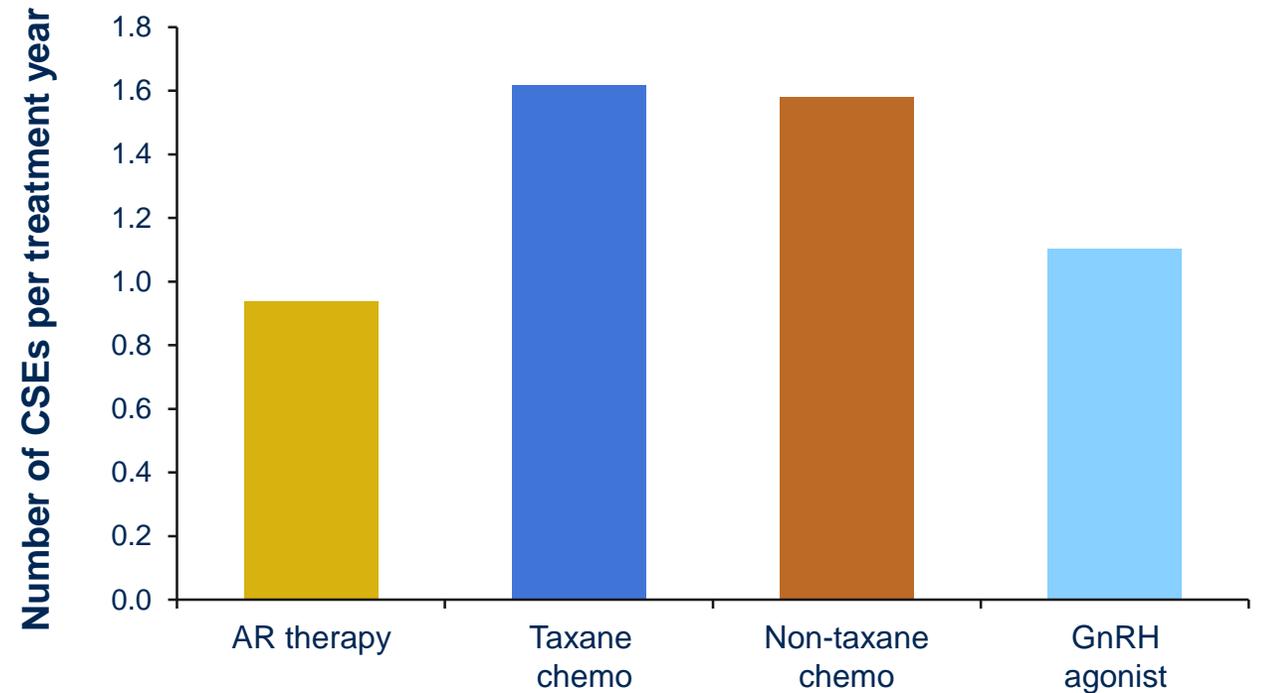
- CSEs occurred in 40% of patients (664/1680), at an average of 1.2 CSEs per treatment year
- Patients had an average of 2 CSEs in total
- Most common CSEs were fatigue (15%), anemia (14%), and back pain (10%)
- Rates of anemia and fatigue were highest in the chemotherapy treatment groups
- Lymphedema was more prevalent in patients receiving a taxane-containing regimen
- Back pain was more common in the GnRH agonist group

AR, androgen receptor; chemo, chemotherapy; CSE, clinically significant event; GnRH, gonadotropin-releasing hormone modulator.

# Conclusions

- Among treatments for patients with mCRPC, chemotherapy-based regimens showed the highest rates of CSEs per treatment year
- Most common CSEs across treatment groups were fatigue (15%), anemia (14%), and back pain (10%)
- These data indicate the burden of treatment for patients and can inform treatment decisions

### CSEs per Treatment Year by Treatment Group



AR, androgen receptor; chemo, chemotherapy; CSE, clinically significant event; GnRH, gonadotropin-releasing hormone modulator.