Real-world treatment patterns in patients with metastatic castration-resistant prostate cancer (mCRPC) previously treated with androgen receptor pathway inhibitor (ARPI) or docetaxel

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BACKGROUND: Patients with mCRPC whose disease progressed on an ARPI have a poor prognosis, with median overall survival of <2 years (Sayegh, *Eur Urol Focus* 2023). This study assesses real-world treatment patterns in patients with mCRPC given recent treatment advancements.

METHODS: This retrospective, observational cohort study screened patients diagnosed with prostate cancer between January 1, 2015, and June 30, 2023, based on IQVIA PharMetrics Plus, a US claims database, using a claims-based algorithm. Patients diagnosed with mCRPC on or after 2018, with prior receipt of an ARPI or docetaxel for metastatic hormone-sensitive prostate cancer (mHSPC) or an ARPI for non-metastatic CRPC (nmCRPC), and who received first-line (1L) therapy for mCRPC were eligible for the study. The index date was the mCRPC diagnosis date. Treatment patterns were described by line of therapy for mCRPC for all patients, and for a subgroup with liver metastases at the index date.

RESULTS: Of 2071 patients with a diagnosis of mCRPC, 510 met eligibility. Median age was 63 years, and median follow-up was 9.9 months. Of these, 188 and 80 patients received subsequent second-line (2L) and third-line (3L) therapies, respectively. ARPI was the most common 1L and 2L regimen for mCRPC (1L, 56.7%; 2L, 44.1%), followed by taxane (1L, 16.9%; 2L, 26.6%) (**Table**). Of the 289 patients who received a 1L ARPI, 84 (29.1%) received a 2L treatment; 27/84 (32.1%) were treated with an additional ARPI in 2L. Use of other regimens, including radiopharmaceuticals and poly (ADP-ribose) polymerase inhibitors, was low, especially in the 1L and 2L settings (<5%). Among the 48 patients with liver metastases, chemotherapy was the most common 1L treatment (47.9%), followed by an ARPI (33.3%).

CONCLUSIONS: These real-world data show that ARPIs remain the most common 1L and 2L treatment in patients with mCRPC despite prior ARPI and/or docetaxel alongside androgen deprivation therapy for mHSPC or nmCRPC.

TABLE. Treatment regimens by line of therapy in patients with mCRPC

1L regimen (N=510), n (%)		2L regimen (N=188), n (%)		3L regimen (N=80), n (%)	
ARPI*,†	289 (56.7)	ARPI*,†	83 (44.1)	Taxane‡	23 (28.8)
Abiraterone	149 (29.2)	Abiraterone	35 (18.6)	ARPI*,†	21 (26.3)
Enzalutamide	124 (24.3)	Enzalutamide	34 (18.1)	Enzalutamide	10 (12.5)
Taxane‡	86 (16.9)	Taxane‡	50 (26.6)	Abiraterone	8 (10.0)
Abiraterone + Docetaxel	16 (3.1)	Olaparib	9 (4.8)	Cabazitaxel + Carboplatin	8 (10.0)

Olaparib	16 (3.1)	Lutetium-177	7 (3.7)	Lutetium-177	6 (7.5)
Sipuleucel-T	15 (2.9)	Abiraterone + Sipuleucel-T	4 (2.1)	Radium-223	5 (6.3)
Other	88 (17.3)	Other	35 (18.6)	Other	17 (21.3)

*Single agent. †Top two ARPIs used are shown. ‡Includes docetaxel and cabazitaxel.

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