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Introduction & Objectives: Management of castration-resistant prostate cancer (CRPC) involves the sequential use of multiple therapeutic approaches. Enzalutamide, in addition to androgen deprivation therapy, confers a survival benefit in men with CRPC, including in those who have received previous chemotherapy. The aim of this retrospective study is to evaluate the effectiveness of enzalutamide in metastatic CRPC (mCRPC) whose disease progressed after docetaxel in a real world setting.

Materials & Methods: A retrospective analysis of all mCRPC patients treated enzalutamide after previous exposure to docetaxel, at two centres, between October 2014 and December 2018. Effectiveness was assessed as overall survival (OS), progression free survival (PFS), and cumulative incidence of adverse events grade ≥ 3 (CTCAE).

Results: Of 120 patients treated with enzalutamide from pharmacy records 51 patients had been previously treated with docetaxel. Median age was 71 years (IQR 66-77), median time from prostate cancer diagnosis was 56 months (IQR 28–127) and 51% had metastatic disease at diagnosis. Median time from diagnosis of castration resistant disease was 29 months (IQR 17-93). At enzalutamide beginning, the median PSA was 65.2 ng/mL (IQR 27.2–142.0); 27.5% had metastatic bone disease only and 17.6% had visceral metastasis. Enzalutamide was used as 2nd line treatment in 75% of patients, as 3rd line in 19.6% and as 4th line in 5.9%. Median treatment duration was 5 months (IQR 3-8). PSA response (decline in $\geq 50\%$) occurred in 56.3% and cumulative incidence of adverse events grade ≥ 3 was 12%. With median follow up of 10 months (IQR 5-15), median PFS was 5 months (95%CI 2.3-7.7), and median OS was 13 months (95%CI 10.6-15.4). Median PFS was 5, 6 and 2 months among patients receiving enzalutamide in 2nd, 3rd line and 4rd line, respectively ($p=0.115$). Median OS was 13 months among patients receiving enzalutamide in 2nd and 3rd lines and 6 months among patients receiving enzalutamide in 4rd line ($p=0.026$). Of 35 patients who progressed on enzalutamide, 34% received at least one subsequent antineoplastic treatment (docetaxel [n=8], cabazitaxel [n=3] and radium-223 [n=1]).

Conclusions: Real world management of enzalutamide for mCRPC was feasible, with favourable safety profile. The slightly lower overall survival achieved in this cohort compared to the AFFIRM trial may be explained by differences in patient and disease-related factors.