

Chemotherapy Treatment Algorithm for Prostate Cancer

Systemic Management of Metastatic prostate cancer summary derived from EAU 2025 guidelines
<https://uroweb.org/guidelines/prostate-cancer/chapter/treatment>

Recommendations	Strength rating
First-line treatment	
Discuss all patients with hormone-sensitive metastatic disease in a multidisciplinary team.	Strong
Offer immediate systemic treatment with androgen deprivation therapy (ADT) to palliate symptoms and reduce the risk for potentially serious sequelae of advanced disease (spinal cord compression, pathological fractures, ureteral obstruction) to M1 symptomatic patients.	Strong
Offer short-term administration of an older generation androgen receptor (AR) antagonist to M1 patients starting luteinising hormone-releasing hormone (LHRH) agonist to reduce the risk of the 'flare-up' phenomenon.	Weak
At the start of ADT offer LHRH antagonists or orchiectomy to patients with impending clinical complications such as spinal cord compression or bladder outlet obstruction.	Strong
Do not offer AR antagonist monotherapy to patients with M1 disease.	Strong
Do not offer ADT monotherapy to patients whose first presentation is M1 disease if they have no contra-indications for combination therapy and have a sufficient life expectancy to benefit from combination therapy (≥ 1 year) and are willing to accept the increased risk of side effects.	Strong
Offer ADT combined with abiraterone acetate plus prednisone or apalutamide or enzalutamide to patients with M1 disease who are fit for the regimen.	Strong
Offer docetaxel only in combination with ADT plus abiraterone or darolutamide to patients with M1 disease who are fit for docetaxel.	Strong
Offer ADT combined with prostate radiotherapy (using doses up to the equivalent of 72 Gy in 2 Gy fractions) to patients whose first presentation is M1 disease and who have low volume of disease by CHAARTED criteria.	Strong
Do not offer ADT combined with surgery to M1 patients outside of clinical trials.	Strong
Only offer metastasis-directed therapy to M1 patients within a clinical trial setting or a well-designed prospective cohort study.	Strong

Supportive care	
Assess osteoporosis risk factors and perform a dexa scan when commencing long-term ADT, to mitigate osseous complications.	Strong
Offer bone protection to avoid fractures in patients receiving combination treatment.	Strong
Offer calcium and vitamin D supplementation when prescribing either denosumab or bisphosphonates and monitor serum calcium.	Strong
Treat painful bone metastases early on with palliative measures such as intensity-modulated radiation therapy/volumetric arc radiation therapy plus image-guided radiation therapy and adequate use of analgesics.	Strong
In patients with spinal cord compression start immediate high-dose cortico-steroids and assess for spinal surgery potentially followed by radiation. Offer radiation therapy alone if surgery is not appropriate.	Strong

Low volume metastatic disease

ADT + ARPi (enzalutamide, apalutamide, abiraterone acetate)
Radiotherapy to prostate
Selected patients consider triplet : ADT + darolutamide + docetaxel

NB ADT plus docetaxel doublet is not indicated in castrate sensitive metastatic prostate cancer except as part of triplet

High volume metastatic prostate cancer

ADT +ARPi (enzalutamide, apalutamide, or abiraterone acetate)
OR
Triplet ADT +docetaxel + darolutamide

NB ADT plus docetaxel doublet is not indicated in castrate sensitive metastatic prostate cancer except as part of triplet

Castrate resistant metastatic prostate cancer:

Treatment options will depend on previous treatment given.
Sequencing of ARPi not permissible outside of a clinical trial
Options include:

Docetaxel

Cabazitaxel

Radium 223

Olaparib monotherapy for patients with confirmed BRCA1 or BRCA2 mutations

Abiraterone acetate + Olaparib for patients with confirmed BRCA1 or 2 mutations.

Management of non-metastatic castrate resistant prostate cancer:

ADT + ARPi (apalutamide, darolutamide or enzalutamide)