Within the last 2 years the therapeutic landscape of castration-resistant prostate cancer (CRPC) has dramatically changed. While chemotherapy with docetaxel has only shown a survival benefit in CRPC patients in the last 10 years, in the meantime 4 approved drugs are available for this indication and approval for immunotherapy with sipuleucel-T is expected. Docetaxel still plays a significant role in the treatment of CRPC but is also a cesura in the therapeutic sequence. For asymptomatic or minimally symptomatic, chemotherapy naive CRPC patients a significant survival benefit was shown for treatment with the androgen biosynthesis inhibitor abiraterone. Clinical data for the antiandrogen enzalutamide are expected shortly for this indication. For patients where docetaxel has failed abiraterone, enzalutamide and cabazitaxel have shown survival benefits in phase III trials. The radionuclide alpharadin not only palliated morbidity induced by bone metastases but also prolonged survival of CRPC patients. This review deals with the various drugs with respect to mode of action, clinical results and indications and will focus on new treatment options, such as targeted therapy with cabozantinib or immunotherapy with sipuleucel-T and prostvac.