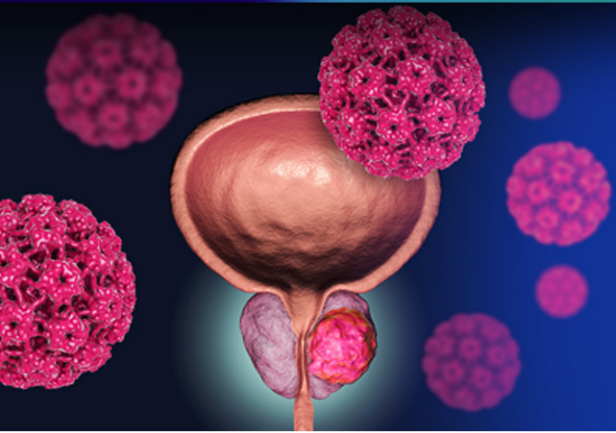

BIOCHEMICAL RECURRENCE OF DISEASE: *Non-Metastatic Castration-Resistant* Prostate Cancer

Non-metastatic castrate-resistant prostate cancer

Resource	Address
American Urological Association (AUA). Castration-resistant prostate cancer: AUA guideline (2018). Accessed 6/17/2021.	www.auanet.org/guidelines/archived-documents/prostate-cancer-castration-resistant-guideline
Bailey-Wilson JE, et al. A major lung cancer susceptibility locus maps to chromosome 6q23-25. *Am J Hum Genet*. 2004;75(3):460-474.	https://pubmed.ncbi.nlm.nih.gov/15272417/
Fizazi K, et al. Darolutamide in nonmetastatic, castration-resistant prostate cancer. *N Engl J Med*. 2019;380:1235-1246.	www.nejm.org/doi/full/10.1056/nejmoa1815671
Geynisman DM, Plimack ER, Zibelman M. Second-generation androgen receptor-targeted therapies in nonmetastatic castration-resistant prostate cancer: effective early intervention or intervening too early? *Eur Urol*. 2016;70:971-973.	https://pubmed.ncbi.nlm.nih.gov/27238654/
Howard LE, et al. Thresholds for PSA doubling time in men with non-metastatic castration-resistant prostate cancer. *BJU Int*. 2017;120:E80-E86.	https://pubmed.ncbi.nlm.nih.gov/28371163/
Hussain M, et al. Enzalutamide in men with nonmetastatic, castration-resistant prostate cancer. *N Engl J Med*. 2018;378:2465-2474.	www.nejm.org/doi/10.1056/nejmoa1800536
Kirby M, Hirst C, Crawford ED. Characterising the castration-resistant prostate cancer population: a systematic review. *Int J Clin Pract*. 2011;65:1180-1192.	https://pubmed.ncbi.nlm.nih.gov/21995694/
Metwalli AR, et al. Elevated alkaline phosphatase velocity strongly predicts overall survival and the risk of bone metastases in castrate-resistant prostate cancer. *Urol Oncol*. 2014;32:761-768.	https://pubmed.ncbi.nlm.nih.gov/24929891/
Moreira DM, et al. Predictors of time to metastasis in castration-resistant prostate cancer. *Urology*. 2016;96:171-176.	https://pubmed.ncbi.nlm.nih.gov/27318265/
National Comprehensive Cancer Network (NCCN). *Prostate Cancer*. V2.2021	www.nccn.org/professionals/physician_gls/pdf/prostate.pdf
Rodríguez-Antolín A, et al. Factors that predict the development of bone	https://pubmed.ncbi.nlm.nih.gov/24156932/

metastases due to prostate cancer: recommendations for follow-up and therapeutic options. *Actas Urol Esp*. 2014;38(4):263-269.	
Smith MR, et al. Natural history of rising serum prostate-specific antigen in men with castrate nonmetastatic prostate cancer. *J Clin Oncol*. 2005;23:2918-2925.	https://pubmed.ncbi.nlm.nih.gov/15860850/
Smith MR, et al. Apalutamide treatment and metastasis-free survival in prostate cancer. *N Engl J Med*. 2018;1408-1418.	www.nejm.org/doi/full/10.1056/NEJMoa1715546
Zou J, et al. Ageing as key factor for distant metastasis patterns and prognosis in patients with extensive-stage small cell lung cancer. *J Cancer*. 2021;12(6):1575-1582.	https://www.jcancer.org/v12p1575.htm

Antiandrogen therapies for non-metastatic castration-resistant prostate cancer

Resource	Address
Beer TM, et al. Enzalutamide in metastatic prostate cancer before chemotherapy. *N Engl J Med*. 2014;371:424-433.	www.nejm.org/doi/full/10.1056/NEJMoa1405095
de Bono JS, et al. Prednisone plus cabazitaxel or mitoxantrone for metastatic castration-resistant prostate cancer progressing after docetaxel treatment: a randomised open-label trial. *Lancet* 2010;376:1147-1154.	https://pubmed.ncbi.nlm.nih.gov/20888992/
de Bono JS, et al. Abiraterone and increased survival in metastatic prostate cancer. *N Engl J Med*. 2011;364:1995-2005.	www.nejm.org/doi/full/10.1056/nejmoa1014618
Fizazi K, et al. Darolutamide in nonmetastatic, castration-resistant prostate cancer. *N Engl J Med*. 2019;380:1235-1246.	www.nejm.org/doi/full/10.1056/nejmoa1815671
Fizazi K, et al. Overall survival (OS) results of phase III ARAMIS study of darolutamide (DARO) added to androgen deprivation therapy (ADT) for nonmetastatic castration-resistant prostate cancer (nmCRPC). *J Clin Oncol*. 2020;38(suppl 15): abstract 5514.	https://ascopubs.org/doi/abs/10.1200/JCO.2020.38.15_suppl.5514

Heidegger I, Brandt MP, Heck MM. Treatment of non-metastatic castration resistant prostate cancer in 2020: what is the best? *Urol Oncol*. 2020;38:129-136.	https://pubmed.ncbi.nlm.nih.gov/31953000/
Hussain M, et al. Enzalutamide in men with nonmetastatic, castration-resistant prostate cancer. *N Engl J Med*. 2018;378:2465-2474.	http://www.nejm.org/doi/10.1056/nejmoa1800536/
Hussain M, et al. PROSPER: A phase 3, randomized, double-blind, placebo (PBO)-controlled study of enzalutamide (ENZA) in men with nonmetastatic castration-resistant prostate cancer (M0 CRPC). *J Clin Oncol*. 2018;36(suppl 6): abstract 3.	https://ascopubs.org/doi/abs/10.1200/JCO.2018.36.6_suppl.3
Kantoff PW, et al. Sipuleucel-T immunotherapy for castration-resistant prostate cancer. *N Engl J Med*. 2010;363:411-422.	www.nejm.org/doi/full/10.1056/nejmoa1001294
Parker C, et al. Alpha emitter radium-223 and survival in metastatic prostate cancer. *N Engl J Med*. 2013;369:213-223.	www.nejm.org/doi/full/10.1056/nejmoa1213755
Ryan CJ, et al. Abiraterone in metastatic prostate cancer without previous chemotherapy. *N Engl J Med*. 2013;368:138-148.	www.nejm.org/doi/full/10.1056/nejmoa1209096
Saad F, et al. Effect of apalutamide on health-related quality of life in patients with non-metastatic castration-resistant prostate cancer: an analysis of the SPARTAN randomised, placebo-controlled, phase 3 trial. *Lancet Oncol*. 2018;19:1404-1416.	https://pubmed.ncbi.nlm.nih.gov/30213449/
Scher HI, et al. Increased survival with enzalutamide in prostate cancer after chemotherapy. *N Engl J Med*. 2012;367:1187-1197.	www.nejm.org/doi/full/10.1056/nejmoa1207506
Small EJ, et al. SPARTAN, a phase 3 double-blind, randomized study of apalutamide (APA) versus placebo (PBO) in patients (pts) with nonmetastatic castration-resistant prostate cancer (nmCRPC). *J Clin Oncol*. 2018;36(suppl 6): abstract 161.	https://ascopubs.org/doi/abs/10.1200/JCO.2018.36.6_suppl.161

Small EJ, et al. Final survival results from SPARTAN, a phase III study of apalutamide (APA) versus placebo (PBO) in patients (pts) with nonmetastatic castration-resistant prostate cancer (nmCRPC). *J Clin Oncol*. 2020;38(suppl 15): abstract 5516.	https://ascopubs.org/doi/abs/10.1200/JCO.2020.38.15_suppl.5516
Smith MR, et al. Apalutamide treatment and metastasis-free survival in prostate cancer. *N Engl J Med*. 2018;378:1408-1418.	www.nejm.org/doi/full/10.1056/NEJMoa1715546
Sternberg CN, et al. Final overview survival (OS) from PROSPER: a phase III, randomized, double-blind, placebo (PBO)-controlled study of enzalutamide (ENZA) in men with nonmetastatic castration-resistant prostate cancer (nmCRPC). *J Clin Oncol*. 2020;38(suppl 15): abstract 5515.	https://ascopubs.org/doi/abs/10.1200/JCO.2020.38.15_suppl.5515
Tannock IF, et al. Docetaxel plus prednisone or mitoxantrone plus prednisone for advanced prostate cancer. *N Engl J Med*. 2004;351:1502-1512.	www.nejm.org/doi/full/10.1056/nejmoa040720
Tombal B, et al. Patient-reported outcomes following enzalutamide or placebo in men with non-metastatic, castration-resistant prostate cancer (PROSPER): a multicentre, randomised, double-blind, phase 3 trial. *Lancet Oncol*. 2019;20:556-569.	https://pubmed.ncbi.nlm.nih.gov/30770294/
Zurth C, et al. Blood-brain barrier penetration of [14C]darolutamide compared with [14C]enzalutamide in rats using whole body autoradiography. *J Clin Oncol*. 2018;36(suppl 6): abstract 345.	https://ascopubs.org/doi/abs/10.1200/JCO.2018.36.6_suppl.345
Zurth C, et al. Higher blood-brain barrier penetration of [^{14}C]apalutamide and [^{14}C]enzalutamide compared to [^{14}C]darolutamide in rats using whole-body autoradiography. *J Clin Oncol*. 2019;37(suppl 7): abstract 156.	https://ascopubs.org/doi/abs/10.1200/JCO.2019.37.7_suppl.156

Application of personalized therapy in the management of non-metastatic castration-resistant prostate cancer

Resource	Address
American Cancer Society (ACS). Treating prostate cancer. Accessed 6/20/2021.	www.cancer.org/cancer/prostate-cancer/treating.html
Fendler WP, et al. Prostate-specific membrane antigen ligand positron emission tomography in men with nonmetastatic castration-resistant prostate cancer. *Clin Cancer Res*. 2019;25:7448-7454.	https://clincancerres.aacrjournals.org/content/25/24/7448.article-info

Case study

Resource	Address
Gandaglia G, et al. Impact of the site of metastases on survival in patients with metastatic prostate cancer. *Eur Urol*. 2015;68:325-334.	https://pubmed.ncbi.nlm.nih.gov/25108577/
Hussain M, et al. Enzalutamide in men with nonmetastatic, castration-resistant prostate cancer. *N Engl J Med*. 2018;378:2465-2474.	www.nejm.org/doi/10.1056/nejmoa1800536
Prostate Cancer UK. Advanced prostate cancer: managing symptoms. Accessed 6/20/2021.	https://prostatecanceruk.org/prostate-information/advanced-prostate-cancer/advanced-prostate-cancer-managing-symptoms
Smith MR, et al. Apalutamide treatment and metastasis-free survival in prostate cancer. *N Engl J Med*. 2018;378:1408-1418.	www.nejm.org/doi/full/10.1056/NEJMoa1715546