

Docetaxel use associated with significant reduction in prostate cancer death in very poor prognostic group

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Men with high-grade prostate cancer and low prostate-specific antigen (PSA) levels have a poor prognosis. The question remains as to whether the chemotherapy drug docetaxel, which increases survival in metastatic

prostate cancer, can improve the cure rate in these patients.

In a new study by investigators from Brigham and Women's Hospital, a meta-analysis of five prospective randomized [clinical trials](#) (RCTs) found that adding docetaxel to standard-of-care (SOC) treatment was associated with a 70% reduction in death from prostate cancer-specific mortality (PCSM). The study was published today in [JAMA Network Open](#).

Investigators performed a [meta-analysis](#) of the RCTs evaluating SOC treatment with radiotherapy and androgen deprivation therapy or with [radical prostatectomy](#) versus SOC plus docetaxel. The final study cohort of 2,184 patients included 145 eligible patients (6.6%) across four eligible RCTs.

"Of these 145 patients, 139 had excellent performance status [PS] and were the main focus of the study. An excellent PS identifies patients who can tolerate the full course of chemotherapy and therefore benefit if the treatment proves effective," says Anthony Victor D'Amico, MD, Ph.D., chief of Genitourinary Radiation Oncology at Brigham and Women's Hospital and senior author of the study.

Among these 139 patients, SOC plus docetaxel was associated with a significant 70% reduction in PCSM and nearly halved all-cause mortality. Remarkably, this treatment regiment dropped the 10-year PCSM rate from nearly 40% to less than 10%, leading to a 10-year overall survival of 80% as compared to 60%.

"It's a marked improvement in survival for these patients, who currently do not have any highly effective treatments," Dr. D'Amico says.

More information: Brandon A. Mahal et al, Mortality Risk for Docetaxel-Treated, High-Grade Prostate Cancer With Low PSA Levels,

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[10.1001/jamanetworkopen.2023.40787](https://doi.org/10.1001/jamanetworkopen.2023.40787)

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