



## Editorial Comment: Ultra-hypofractionated versus conventionally fractionated radiotherapy for prostate cancer: 5-year outcomes of the HYPO-RT-PC randomised, non-inferiority, phase 3 trial

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### COMMENT

Due the low alpha/beta ratio, the hypofractionation of the external radiotherapy treatment of prostate cancer can increase the therapeutic ratio and reduce the health-care cost and improve the patient comfort. It can be done by moderate hypofractionation (using 2.4 – 3.4 Gy) or by ultra-hypofractionation (at least 5 Gy per fraction) (1-3).

This phase 3 non-inferiority randomized trial is the first to report on the efficacy and side-effects on ultra-fractionation compared with conventional and has the PSA relapse and clinical failure as primary end-point. The most relevant secondary endpoints were the overall survival and prostate cancer-specific survival and the median follow-up time was 5yr.

The ultra-hypofractionation was non-inferior to the conventional fractionation (HR 1.002) and no significant differences were found in terms of relevant urinary or gastrointestinal toxicity.

**CONFLICT OF INTEREST**

None declared.

**REFERENCES**

1. Dasu A, Toma-Dasu I. Prostate alpha/beta revisited -- an analysis of clinical results from 14 168 patients. *Acta Oncol.* 2012;51:963-74.
2. Zietman AL. Making Radiation Therapy for Prostate Cancer More Economical and More Convenient. *J Clin Oncol.* 2016;34:2323-4.
3. Morgan SC, Hoffman K, Loblaw DA, Buyyounouski MK, Patton C, Barocas D, et al. Hypofractionated Radiation Therapy for Localized Prostate Cancer: Executive Summary of an ASTRO, ASCO, and AUA Evidence-Based Guideline. *Pract Radiat Oncol.* 2018;8:354-60.

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