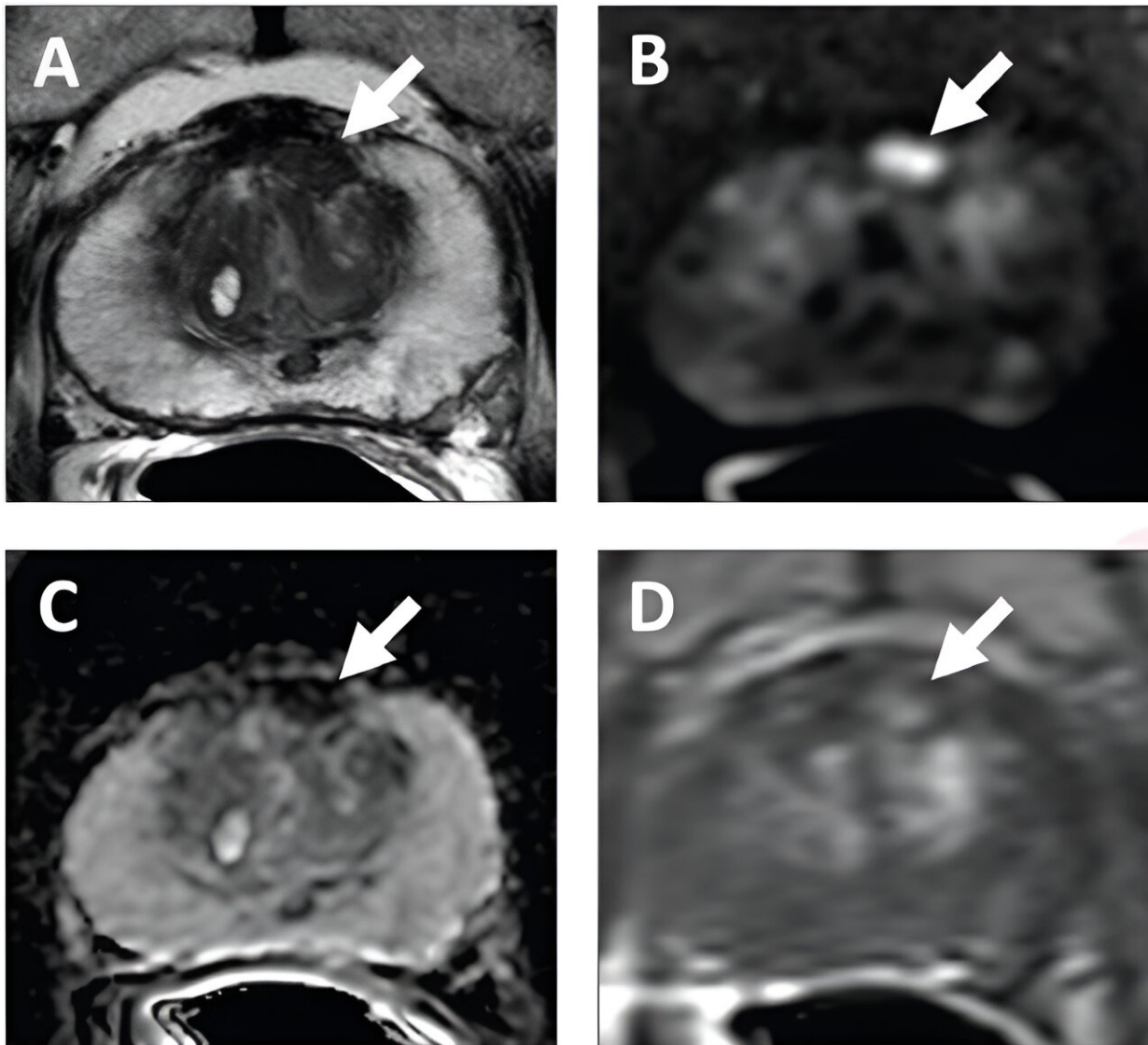


Prostate cancer upgrade, downgrade rates in PI-RADS 2.0 versus 2.1

September 20 2023



Lesion (arrow) shows hypointensity on T2-weighted image (A), hyperintensity on high b-value DWI (B), hypointensity on ADC map (C), and focal early

enhancement on dynamic contrast-enhanced image (D). Lesion assessed as category 4 using PI-RADS version 2.1 MRI-targeted biopsy of lesion revealed prostate adenocarcinoma with International Society of Urogenital Pathology (ISUP) grade group 2. At subsequent radical prostatectomy performed 6 months after biopsy, ISUP grade group upgraded to 3. Credit: *American Journal of Roentgenology* (2023). DOI: 10.2214/AJR.23.29964

According to a [study](#) published in the *American Journal of Roentgenology (AJR)*, upgrade and downgrade rates from targeted biopsy to radical prostatectomy were not significantly different between patients whose MRI examinations were clinically interpreted using PI-RADS Version v2.0 or v2.1.

"Implementation of the most recent PI-RADS update did not improve the incongruence in prostate cancer grade assessment between targeted [biopsy](#) and surgery," wrote corresponding author Baris Turkbey, MD, from the Molecular Imaging Branch of the National Cancer Institute at National Institutes of Health in Bethesda, MD.

Dr. Turkbey and colleagues' *AJR* study entailed a retrospective post-hoc analysis of patients who underwent 3-T prostate MRI at a single institution from May 2015 to March 2023 during prospective clinical trials. From trial participants, the authors identified those who underwent MRI followed by MRI/ultrasound-fusion guided targeted biopsy and radical prostatectomy within a 1-year interval. A single genitourinary radiologist performed clinical interpretations of the MRI examinations using PI-RADS v2.0 from May 2015 to March 2019, and using PI-RADS v2.1 from April 2019 to March 2023.

Ultimately, [patients](#) who underwent MRI interpreted by PI-RADS v2.0 and PI-RADS v2.1 showed no significant differences in respective rates

of upgrade (29% vs. 22%, $p = .15$), downgrade (19% vs. 21%, $p = .76$), clinically [significant upgrade](#) (14% vs. 10%, $p = .27$), or clinically significant downgrade (1% vs. 1%, $p > .99$) from targeted biopsy to [radical prostatectomy](#) grade group.

More information: Enis C. Yilmaz et al, PI-RADS Version 2.0 Versus Version 2.1: Comparison of Prostate Cancer Gleason Grade Upgrade and Downgrade Rates From MRI-Targeted Biopsy to Radical Prostatectomy, *American Journal of Roentgenology* (2023). [DOI: 10.2214/AJR.23.29964](#)

Provided by American Roentgen Ray Society

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