**INTRODUCTION**

- Prostate biopsy grade group (GG) is the foundation of PCa management, therefore accurate preoperative determination of PCa GG is crucial for optimal treatment decisions.
- Targeted biopsies improve the detection of csPCa.
- Different targeting approaches exist and it is unknown whether different techniques yield distinct GG concordance between biopsy and radical prostatectomy.

**OBJECTIVE**

To determine and compare the rates of grade group concordance between preoperative in-bore (IBBx) versus MRI-TRUS fusion (FBx) biopsies and radical prostatectomy.

**PATIENTS & METHODS**

- **Design:** Single-center, retrospective review of prospectively generated data.
  - **Eligibility:** All men with abnormal mpMRI who subsequently underwent IBBx or FBx between May/2017-Jan/2019 and May/2017-April/2018, respectively, followed by radical prostatectomy.
  - **FBx included targeted and systematic sampling; IBBx was limited to sampling the MRI-visible lesions.**
  - **Reference standard:** GG of the index lesion on the radical prostatectomy specimen served as the gold-standard; the highest GG on the preoperative biopsy specimens was used at a patient level.
  - **Analysis:** Two-sided two-proportion z-tests were used with significant level set at 0.05.

**RESULTS**

- **191 men** (90 IBBx and 101 FBx; mean age 65y, PSA 8.3 ng/mL, prostate volume 53 cc, PSA density 0.18 ng/mL/cc) were eligible.
  - Differences in concordance (IBBx: 67%, 60/90, FBx: 57%, 57/101) and downgrade (IBBx: 20%, 18/90; FBx: 16%, 16/101) rates were not statistically significant (p=0.16 and 0.47, respectively).
  - There were fewer upgrades in the IBBx (13%, 12/90) than in the FBx (28%, 28/101) group (p=0.01).
  - Most (62%, 46/74) reclassified cases involved GG 2-3 changes.

**DISCUSSION AND CONCLUSION**

- **In our study, in-bore biopsies IBBx had lower incidence of GG upgrade after RP** suggesting that it may provide preoperative risk stratification superior compared to FBx.
  - Concordance and downgrade rates were not significantly different between the two targeting approaches.