

Conclusions: Using mpMRI to triage men prior to TRUS-guided prostate biopsies might allow 93% of patients avoid unnecessary biopsies. However, this approach will fail to detect significant PCa in a significant number of patients, including high grade cancers. mpMRI prostate for selection of patients requiring biopsy should be introduced with caution.

Poster 9 Is PSA being over utilized in the acute hospital inpatient setting: A single centre review

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Introduction: National Prostate Cancer Referral Guidelines recommend PSA testing in men aged 50–70 years following an informed discussion. The guideline emphasises the importance of shared decision making. Testing is not recommended in asymptomatic men with a life expectancy <10 years. The aim of this study was to assess current PSA testing practices in a single institution.

Method: All PSA tests performed from the 1st of January 2017 to 30th June 2017 were analysed. Endpoints included patient demographics, location and ordering of test and subsequent investigations and prostate cancer (PCa) diagnoses.

Results: A total of 409 PSA tests were carried out in 390 men. Fifty-three tests (16.5%) were ordered in men <50 years, 182(46.6%) in men aged 50–70 and 171(42.6%) in men >70 years. Forty-two (10.3%) tests were performed in the emergency department (ED), 190 (46.5%) on inpatients, 98 (23.9%) from the outpatient department and 79 (19.3%) by the urology service.

Thirteen (3.3%) men proceeded to have a prostate biopsy. Six (1.5%) men were diagnosed with PC; 3 patients diagnosed following biopsy, 1 clinical diagnosis and 2 diagnosed with metastatic disease. Nine (2.3%) patients had a previous diagnosis of PC.

Conclusion: This study demonstrates a large proportion of PSA tests are ordered by non-urology specialties in an inpatient or ED setting. Furthermore, 19.2% of tests were ordered in patients <40 and >80 years of age. The appropriateness of the majority of these tests is questionable. This study highlights the need for greater education among other hospital specialties on the role of PSA testing.

Poster 10 The use of multiparametric MRI for prostate cancer diagnosis in contemporary practice

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Introduction: PROMIS¹ and PRECISION² trials have suggested that multiparametric MRI (mpMRI) can be used as a triage test prior to performing a prostate biopsy. We aimed to evaluate contemporary patterns of mpMRI usage and examine the correlation between PIRADS scoring and prostate biopsy results in our tertiary referral centre.

Methods: A retrospective review of all patients who underwent pre-biopsy mpMRI and prostate biopsy in 2018 was performed. Prostate mpMRIs were reported by two uro-radiology consultants using the PIRADS v2 scoring system. Patients biopsy results were correlated with mpMRI findings.

Results: Of 334 patients who underwent prostate biopsy in 2018, 200 underwent a pre-biopsy mpMRI with a positive biopsy rate of 65.5% (131/200). Clinically significant disease (Gleason score ≥ 7) was identified in 46.5% (93/200). Rates of clinically significant disease

detected in patients with PIRADS 5, 4, 3 scores was 72%, 44%, 18% respectively. No clinically significant disease was found in patients with a PIRADS 2 score who had a subsequent prostate biopsy. High-grade disease (Gleason score 8–10) was found only in patients with PIRADS 4 and 5 scores.

Conclusion: In line with international series, higher PIRADS scores correlated with higher rates of clinically significant disease. Reassuringly, no high grade disease was detected in patients with PIRADS ≤ 3 score. Pre-biopsy mpMRI is a safe, useful tool in prostate cancer diagnosis and should be the standard of care in the prostate cancer diagnostic pathway.

References

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Poster 11 The Effect of Pre-Biopsy MRI on Potential Grade Migration in Prostate Cancer

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Introduction: The use of pre-biopsy MRI in prostate cancer screening can increase the detection of clinically significant prostate cancer and reduce the detection of clinically insignificant prostate cancer^{1,2}. Thus, one would expect a grade migration of new prostate cancer diagnoses if such a diagnostic pathway was implemented. The aim of this audit was to establish whether the implementation of a pre-biopsy prostate MRI resulted in a significant grade migration in men undergoing radical prostatectomy.

Methods: Theatre and pathological records were used to identify all men that underwent a radical prostatectomy in Beaumont Hospital between June 2016 and April 2019. A retrospective analysis of the radiological and final pathological findings was performed. Final pathological stage and grade were correlated with the timing of the patient's MRI. Clinically significant disease was defined as Gleason 3+4 (ISUP Grade Group 2) or higher.

Results: 155 men met the inclusion criteria. 60 men who underwent surgery had a pre-biopsy MRI. The median age in the pre-biopsy MRI group was 59 years compared to 63 years in the TRUS group. The incidence of clinically significant disease was 92% in the pre-biopsy MRI group versus 87% in the traditional diagnostic TRUS biopsy group.

Conclusion: Our findings demonstrate that routine use of a pre-biopsy prostate MRI results in a grade migration in newly diagnosed prostate cancer. This can increase the detection of clinically significant disease and reduce overtreatment in prostate cancer.

References

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