measured prospectively using National Treatment Purchase Fund waiting list data.
Results: In January 2017, 508 patients were waiting >15 months for an initial clinic appointment. The clinical validation process resulted in a direct clinic appointment in 36.4%, ANP led clinic in 12.2%, USS prior to clinic appointment in 29.1%, cystoscopy (±USS) in 9.1% and refer back to GP/alternate service in 13.2%. This new model of outpatient service delivery commenced in July 2017 when there were 368 patients waiting >12 months. This led to a four-fold decrease in patients waiting >12 months by the end of December 2017.
Conclusion: This pilot study demonstrates that clinical validation followed by implementation of new models of outpatient service delivery has the potential to reduce existing waiting lists. This model could be implemented in other Irish hospital groups.

Poster 6 MRI for clinically suspected prostate cancer – the disparity between private and public sectors

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Introduction: There is increasing evidence to implement multi-parametric magnetic resonance imaging (mpMRI) for biopsy naive men with clinically suspected prostate cancer (PCa) [1]. This will reduce the number of unnecessary trans rectal ultrasound biopsies (TRUS-Bx) performed and reduce the number of indolent cancers diagnosed [2]. The aim of this study is assess current clinical practices for investigating clinically suspected prostate cancer in Ireland and determine if private health insurance providers are offering mpMRI scans in biopsy naive men.
Methods: Each health insurance provider procedure code was reviewed. The indications and requirements for prostate mpMRI in the setting of diagnosis, staging, surveillance, and recurrence were assessed for each health care provider. Current practices adopted by accredited referral clinics for suspected prostate cancer were reviewed.
Results: Two of the three leading health insurance providers, which between them cover 46% of the private health insurance market in Ireland, provide pre biopsy mpMRI cover as of April 2019. This leaves almost half of those insured with no access to pre-biopsy mpMRI. This is in contrast to the majority of public NCCP hospitals that offer pre-biopsy mpMRI for clinically suspected prostate cancer.
Conclusions: Pre biopsy mpMRI for clinically suspected prostate cancer is emerging as a standard of practice in Ireland. International guidelines are also changing to reflect latest clinical trial evidence. Private health insurance providers should amend their policies to reflect current clinical practices already adopted in the public sector in keeping with current evidence.

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Poster 7 The Changing Trend in Prostate Cancer Diagnostics in Ireland

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Introduction: Approximately 250 men are diagnosed with prostate cancer every month in Ireland.[1] A significant number of these men are diagnosed through the nationwide Rapid Access Prostate Clinic (RAPC). Traditionally, men with suspected prostate cancer initially underwent a Transrectal Ultrasound (TRUS) guided biopsy of the prostate. However, recent European guidelines[2] now favour pre-biopsy magnetic resonance imaging (MRI). We sought to assess the impact of prostate MRI on resource allocation.
Methods: All MRI Prostate and TRUS Biopsy examinations performed in Beaumont Hospital between January 2014 to December 2018 were identified using the National Integrated Medical Imaging System (NIMIS). The number of men attending the RAPC was identified from a central registry.
Results: There has been a 73% increase in the number of men referred to the RAPC from 2014 (n = 277) to 2018 (n = 479). The number of TRUS biopsies has remained static (n = 310 in 2014 vs. n = 320 in 2018). There has been a 343% increase in the number of prostate MRIs performed (n = 213 in 2014, n = 732 in 2018).
Conclusion: There has been a significant increase in referrals to the RAPC and an exponential increase in the use of MRI over the last five years. As a result, resources in the future should be tailored to cater for this increasing demand for MRI.

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Poster 8 Is mpMRI prostate ready for use in selecting patients who need TRUS-guided prostate biopsy?

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Introduction: Recent NICE guidelines have promoted mpMRI in patients with elevated PSA before consideration for prostate biopsy. The present study focussed on performance of mpMRI in our institution (7 years experience with pre-biopsy MRI) as a means of avoiding unnecessary prostate biopsies.
Methods: We reviewed our contemporary experience in 160 consecutive patients who all had pre-biopsy mpMRI prostate, followed by all having systematic +/– targeted prostate biopsies performed. Negative MRI was defined as mpMRI PIRADS score ≤2. Prostate biopsies were deemed positive if clinically significant PCa was detected (Gleason score ≥3+4). High grade cancer was defined as Gleason score ≥4 + 3. NPV of mpMRI prostate for exclusion of clinically significant PCa was calculated in standard fashion.
Results: mpMRI results were PIRADS 1 and 2 in 11 and 61 patients respectively. Of these 72 patients, biopsies were positive in 5 patients (2 high grade), while 67 patients had negative biopsies. NPV for significant PCa was 93%. mpMRI failed to detect clinically significant PCa in 7% of mpMRI negative patients.

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: PROMIS[1] and PRECISION[2] 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.

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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.

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