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Abstract Book_BAUS 2024

ePoster Session 1: Renal Cancer / Testis Cancer / Sarcoma, Tuesday 25 June, 0800-0900, Hall 4

P1-1 A retrospective cohort study demonstrating the utility of systemic anti-cancer treatment (SACT) to reduce venous tumour thrombus size in patients with T3b+ renal cell carcinoma (RCC) from the Scottish Renal Cancer Consortium (ScotRCC)

Mr Gianluca Maresca[1], Dr Kay McGillivray[2], Mr Saad Siddiqui[3], Mr. James Donaldson[3], Mr Grenville Oades[2], Ms Flora Rodger[2], Mr Alex Chapman[4], Mr Alexander Laird[1], H Burns[5]

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Introduction: Surgery for locally advanced RCC with venous tumour thrombus (VTT) is associated with significant morbidity and mortality. While randomised controlled trials (RCTs) have demonstrated benefit of SACT in the treatment of metastatic RCC, only one phase 2 study of 20 patients has assessed the effect of SACT on downsizing VTT with a view to reducing peri-operative risk.

We aimed to use national, real-world data from the ScotRCC to assess the effect of SACT on VTT size and Mayo classification in patients with T3b+ RCC.

Patients and Methods: A retrospective study of patients with T3b+ RCC from the ScotRCC database who received SACT between 2012-2022 was performed. Serial imaging was reviewed for changes in VTT size and level based on the Mayo classification. Differences between SACT regimes were assessed.

Results: 63 patients were included with a median age 63 years (range 35 – 81) and median follow-up 20 months (range 3-101). Median VTT size at diagnosis was 5.5cm (range 1.6 – 14.1) and most (n=26, 41%) had VTT at Mayo level 3. Overall, 55 (87%) of patients had a decrease in VTT size and 33 (52%) had a reduction in VTT level. The median time to first decrease in level was 2 months (range 1-12). 20 (61%) VTTs reduced by 1 level and 13 (39%) by ⩾2 levels. Pembrolizumab and Axitinib showed the most promising results in reducing VTT size and level.

Conclusion: This study supports the use of SACT to reduce VTT. RCTs may guide the optimal SACT combination and duration.

P1-2 Staging CT chest for cT1a renal masses: does it change management?

Dr Sanjana Ilangovan[1], Miss Hannah Warren, Dr Thet Paing, Dr Pyae Phyo Tun, Mr Prasad Patki, Mr. Faiz Mumtaz, Mr. Ravi Barod, Mr. Axel Bex, Miss Maxine Tran

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Introduction: EAU guidelines recommend omission of CT chest for staging incidental T1a tumours (⩽4cm) without systemic symptoms, due to the low incidence of pulmonary metastases (weak recommendation, level of evidence 3). This study aimed to assess if a baseline staging CT chest has been clinically useful in a cohort with T1a renal tumours.

Material and Methods: Consecutive patients with solid and cystic cT1a renal tumours were prospectively screened for eligibility to the NEST study (ISRCTN 18156881) at a single tertiary referral centre multidisciplinary team meeting (MDT). Four hundred patients were eligible between 28/05/2019 and 13/01/2021 and included in this audit. Electronic records were reviewed retrospectively for follow-up data. 17 patients with missing data were excluded.

Results: Of 383 included patients (63% male, median aged 65 years, median tumour diameter 2.4 cm), 264 (68.9%) had a staging CT chest at baseline as part of their clinical staging investigations. No thoracic renal metastases were diagnosed. Abnormalities were reported in

37/264 (14%), including indeterminate lung lesion(s) in 32 patients deemed benign on further investigation/surveillance/lung MDT, 3 synchronous primary lung tumours (1 of which resulted in a change in the decision of renal tumour management), 1 pre-existing mesothelioma, 1 pleural effusion related to known renal failure.
Conclusion: CT chest has limited utility as part of the clinical staging investigations for cT1a renal tumours and has negligible impact on subsequent renal tumour management. Rather, it triggered further investigations and follow-ups for 14% of patients and detected concurrent incidental primary lung tumours in 1% of patients.

P1-3 Radiomics and artificial intelligence in predicting heterogeneity and tumour grade in renal cell carcinoma: comparison with percutaneous biopsy

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Objectives: To predict the WHO/ISUP grade of ccRCC preoperatively and characterize tumour heterogeneity of tumour sub regions using radiomics and machine learning models
Methods: Data were obtained from multiple institutions across two counties from 391 patients with pathologically proven ccRCC. For analysis, the data were divided into 4 cohort. Cohort 1 and 2 were data from the respective institutions from two countries, cohort 3 was the combined data and cohort 4 data was where both biopsy and subsequent histology from resection (partial or total nephrectomy) was available. 3D image segmentation was done to achieve a voxel of interest (VOI) mask. Radiomics features were then extracted from the contrast enhanced images and the data normalized. Correlation coefficients and XGBoost model were used to reduce the dimensionality of the features. Algorithms were implemented for predicting grading ccRCC and characterizing hetergeniety of sub-regions in the tumours
Results: For cohort 1, 50% tumor core and 25% tumor periphery exhibited best performance with an average AUC of 77.91% and 78.64% respectively. 50% tumor core had the highest performance in cohort 2 and cohort 3 with an average AUC of 87.64% and 76.91% respectively. Cohort 4 with 100% tumour segmentation showed an AUC of 95% and 80% for grade prediction using internal and external validation respectively while biopsy histology had an AUC of 28% for the prediction of final grade of resection histology.
Conclusion: Radiomics signatures combined with machine learning have the potential predict WHO/ISUP grade of ccRCC with superior performance compared to biopsy.

P1-4 Evaluation of clinicopathological features and outcomes of squamous cell carcinoma of renal pelvis in a single tertiary care center

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Introduction: Primary Squamous Cell Carcinoma (SCC) of the renal pelvis where there is no squamous epithelium is a rare entity (0.5%-0.8% of malignant renal tumors) It is believed that chronic irritation of the urothelium secondary to urolithiasis results in squamous metaplasia which consequently develops into squamous cell carcinoma
Methods: This retrospective observational record-based study included 36 patients who were operated for primary squamous cell carcinoma of the renal pelvis in a tertiary care hospital over the last 20 years. Detailed structured proforma including the demographic, surgical and follow up details were filled out for all the patients. The relationship between renal calculi and clinical characteristics, including age at diagnosis, year of diagnosis, tumor grafe, size, nodal status, subtype and treatment was analysed.
Results: The mean age was 68 years (20-79 years) with male predisposition (1:6.1). All patients had urolithiasis (mean duration 33.3 years). 41.6% were recurrent stone formers and 41.6% had undergone surgery for urolithiasis. At diagnosis, 47.2% patients were pT4, 50% were pT3 and remaining was pT2. All of them underwent radical nephrectomy. Postoperatively, 12.1% received radiotherapy and 18.2% received chemotherapy.
91.7% patients had succumbed on 5 year follow up. Log rank test suggested no difference in survival with or without adjuvant treatment. However, initiating chemotherapy within 6 months and radiotherapy within 11 months increased the survival chances.
Conclusion: The association of SCC with renal stone disease is noteworthy. Despite advances, survival is less than 1 year in most cases. Early initiation of adjuvant therapy should be encouraged.

P1-5 The role of biopsy in small renal masses <4cm: A European Modified Delphi Consensus Statement

Mr Darryl Bernstein[1], Ms Hannah Warren[1], Mr Joseph Santiapillai[1], Ms Geraldine Fox[2], Professor Tze Wah[3], Dr Riccardo Campi[4], Professor Axel Bex[1], Mr Ravi Barod[1], Professor Kurinchi Gurusamy[5], Professor Maxine Tran[1], Wildgoose WH, Stewart GD, Armitage J, Le Roux P, Keeley Jr FX, Campain N, Challacombe B, Warburton H, Palumbo C, Muselaers CHJ, Yu D, Oliveira P, Calio A, El-Sheikh S et al. et al.
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Introduction: Utilisation of diagnostic biopsy for small renal masses is variable across Europe. We worked with expert clinicians and patients to produce a consensus statement on the role of biopsy and to identify areas in which further research was required.
Methods: Interviews with clinicians and patients were performed to identify potential statements on the role of biopsy and research gaps. Subsequently, an expert multi-disciplinary panel including patients and clinicians scored statements on a nine-point scale through a 3-stage web-based modified Delphi process, to assess consensus (>70% agreement). Panel members were provided with options to propose further statements for consideration after round one. A hybrid virtual / in-person moderation meeting was held to discuss statements where threshold of agreement was not met, before round 3.
Results: 38 clinicians and 14 patients were involved in the statement, with 29 participants (76%) completing all three rounds of the process. 18 of 21 statements reached consensus.
Recommendations included offering a biopsy before active treatment and offering a second attempt following a non-diagnostic biopsy, or if the characteristics of the renal mass changed on surveillance imaging. Additional recommendations included offering biopsy prior to starting on an active surveillance pathway and ensuring a biopsy service is available to all in need. Identified research gaps included a health economics assessment of biopsy and research evaluating how biopsy affects patient treatment choice and anxiety.
Conclusion: This Delphi consensus statement, performed with clinicians and patients, provides insight into best-practice on renal tumour biopsy and priority areas for future research.

P1-6 Concordance between renal tumour biopsy and robotic-assisted partial and radical nephrectomy pathology; a 10-year experience

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Introduction & Objectives: Despite renal tumour biopsy (RTB) use being widespread, little data exists on its diagnostic accuracy in the United Kingdom. We aimed to perform a multi-centre 10-year assessment of the concordance between RTB and surgical pathology from robotic-assisted partial nephrectomy (RAPN) or robotic-assisted radical nephrectomy (RARN).
Materials & Methods: Patients with pre-operative RTB undergoing RAPN or RARN for suspected malignancy 09/09/2013-09/09/2023 were enrolled retrospectively from three NHS trusts. Patients were excluded if the renal tumour had prior cryotherapy or if their biopsy or nephrectomy histology were unavailable or inconclusive. Primary outcome was concordance with presence/absence of malignancy. Secondary outcomes were concordance with RCC sub-type and nuclear grade (patients with clear cell or papillary renal cell carcinoma [RCC] only), false negative rate, false positive rate, sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV).
Results: 332 and 132 patients underwent RAPN and RARN respectively. 160 received pre-operative RTB, with nine patients excluded, leaving 151 eligible patients. Median age was 63 years and 48 were female. On surgical specimens, 144 patients had malignant histology. RTB was highly concordant with presence/absence of malignancy (146/151; 97%).
Amongst patients with malignancy, RTB was highly concordant with RCC type (136/144; 94%), and nuclear grade (65%). Biopsy true positive, false positive, false negative and true negative were 140, 1, 4 and 6 patients respectively.
Sensitivity, specificity, PPV and NPV were 97%, 86%, 99% and 60%, respectively.
Conclusions: In patients undergoing RAPN or RARN, pre-operative RTB has high concordance with surgical pathology.

P1-7 Active Surveillance for the T1a Renal Mass is effective and safe: A retrospective data analysis

Mr Darryl Bernstein[1], Mr Mehar Bijral[2], Miss Shira H Dworkin[2], Mr Hao Gao[2], Mr Keval Patel[2], Miss Thiara Rupasinghe[2], Mr Chandran Tanabalan[3], Professor Axel Bex[1], Mr Ravi Barod[1], Professor Maxine Tran[4], Warren H, Santiapillai J, Grant L, Walkden M, Etessami N, Tran-Dang M, El-Sheikh S, Patki P, Mumtaz F et al. et al.
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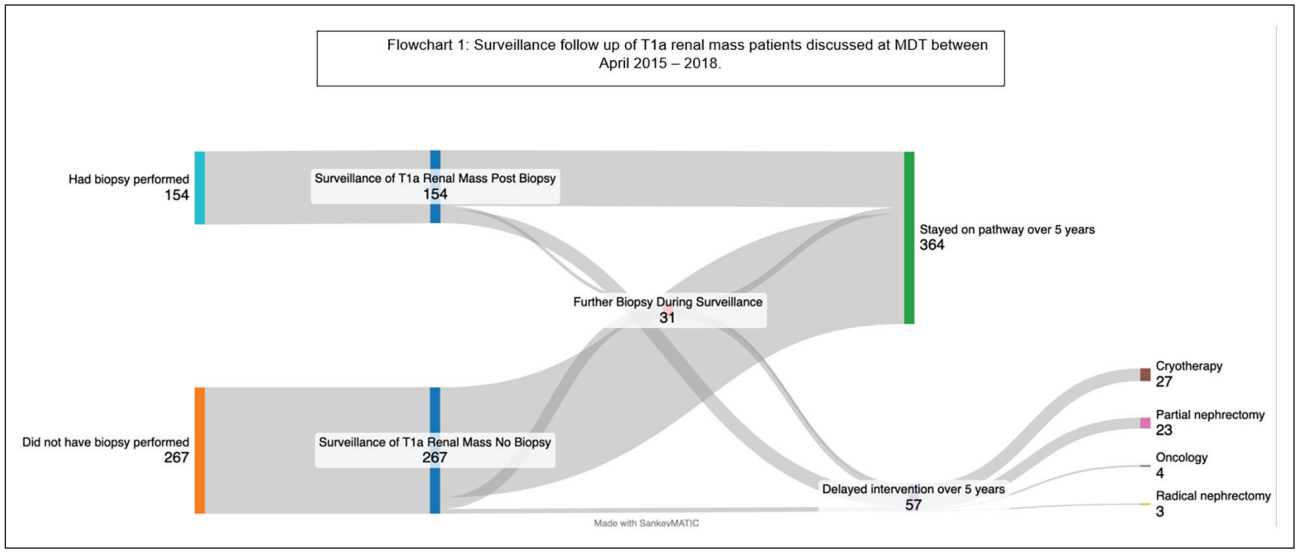
Introduction: Active surveillance as a management option for small renal masses has increased in acceptance in recent years, particularly for the elderly or those with significant co-morbidities. We investigated the outcome of active surveillance and whether a renal tumour biopsy (RTB) impacted on intervention.



Methods: All patients referred to a tertiary centre with a renal mass <4cm from April 2015 – April 2018 were analysed (n= 816). A minimum of 5 years follow up data was collected retrospectively, until November 2023, from electronic records of the 421/816 (52%) of patients which opted for initial active surveillance.

Results: Of 421 patients opting for surveillance, 154/421 (37%) had an RTB prior to embarking on active surveillance. 364/421 (86%) patients remained on surveillance at 5 years. 31/421 (7%) had an RTB whilst on surveillance, and for 7/31 (23%) this was not their first biopsy.

57/421 (13%) opted for delayed intervention within 5 years (average of 20 months). Of those opting for delayed intervention, 25/57 (44%) chose this due to increasing size of the monitored mass, 20/57 (35%) due to patient choice, and 5/57 (9%) came off due to resolved comorbidities.

3/421 (1.4%) of patients on surveillance developed metastases within the follow up period and were transferred to oncology care.

See River Plot (Figure 1.)

Conclusion: These data show that active surveillance for T1a renal masses in this population is effective and safe, with limited patients opting for delayed intervention within 5 years. Renal mass biopsy is useful in selecting patients for active surveillance.

P1-8 Malignancy Rate of Bosniak 3 and 4 Complex Renal Cystic Lesions

Mr Abhishek Reekhaye[1], Mrs Kathryn Brown[1], Mrs Joanne Oakley[1], Mr Harbinder Sharma[1], Mr Amr Emara[1], Mr Manar Malki[1], Mr Neil Barber[1], Mr Muddassar Hussain[1]

[1]Frimley Park Hospital, Frimley, United Kingdom

Introduction: The purpose of this study was to determine the malignancy rate of surgically treated complex renal cysts classified as Bosniak 3 or 4 in our regional renal cancer centre.

Materials and Methods: We searched our database for cystic lesions classified as Bosniak 3 or 4. Surgically resected lesions were correlated with histology reports to obtain malignancy rates.

Results: A total of 1018 radical and 1267 partial nephrectomies have been carried out in our institution 2005. We included 63 Bosniak 3 and 4 lesions which were surgically resected in the final analysis. The vast majority of those lesions (51 out of 63) were resected with a robotically-assisted partial nephrectomy (81%) with a median length of stay of 1 night. Of the 51 patients who underwent robotic-assisted surgery, intra-operative cyst rupture occurred in only 3 cases. The positive surgical margin rate was 2%. Clavien-Dindo >2 post-operative complication rate was 2%.

60 lesions were malignant and 3 were benign. Malignancy rates were 100% for Bosniak 3 lesions and 94% for Bosniak 4 lesions. Most malignant cysts were early-stage pT1 cysts. Clear cell RCC was the most prevalent tumour type followed by papillary RCC.

Conclusion: Our study demonstrated much higher prevalence of malignancy (100%) in radiologically detected Bosniak 3 cysts than described in the literature. The findings highlight the importance of surgical resection as a primary treatment option in Bosniak 3 lesions. Robotic-assisted partial nephrectomy for complex renal cystic lesions can be safely and effectively performed in centres with significant robotic expertise.

P1-9 Patient outcomes following surgical treatment of retroperitoneal sarcoma in a tertiary centre

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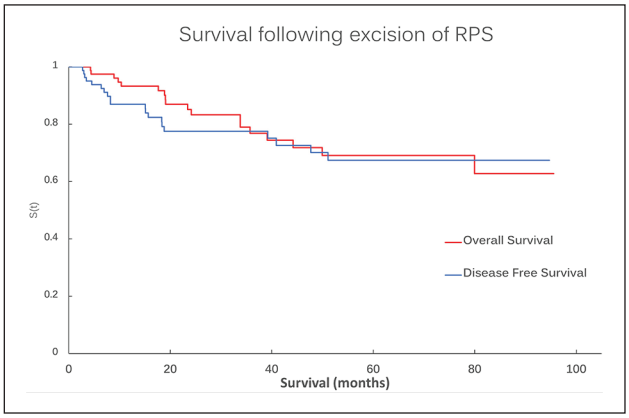
Introduction: Retroperitoneal Sarcoma (RPS) is a rare entity, with limited high-level evidence regarding best practice. Following the STRASS trial, the current consensus remains upfront complete surgical excision with a negative (R0) surgical margin.
Patients & Methods: We report nonrandomised retrospective data from a tertiary centre undertaking primary resection of suspected RPS between Jan2016-Dec2023. Histological, radiological and clinical data was retrieved from electronic patient records. Patients unfit for surgical excision and non-retroperitoneal site of disease were excluded.
Results: 109 consecutive patients underwent excision of suspected RPS during the time period. The median length of follow up was 34.1 months (range 2-95). Median age was 58 at time of surgery(19.9-86.5). 7 patients were treated with neoadjuvant chemotherapy or radiotherapy.
Pathological subtypes were heterogenous. De-differentiated liposarcoma, well differentiated liposarcoma and leiomyosarcoma were the most common. 26 patients had schwannoma, atypical lipomatous tumour, or other benign histology and were excluded from the analysis.
Margin status was 63.8%, 31.3% and 2.7% for R0, R1 and R2 disease respectively. 3-year disease free survival was 77.6% and overall survival 76.8% (figure 1).
19 patients died during the follow up period. 6 patients had post operative complications ⩾ Clavien-Dindo level 3.
Conclusions: RPS represents a diverse group of tumours, and our outcomes are comparable with previous published case series. Surgical treatment of selected cases of RPS in a tertiary centre appears safe and feasible.



P1-10 Malignant progression outcomes of Bosniak graded renal cysts in the modern era of better imaging and uro-radiology subspecialisation

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Introduction: Aim of this study is to provide the outcome of Bosniak graded renal cysts in the modern era of enhanced CT imaging and subspecialty evolution of Uro-Radiologists. We collected data for Bosniak graded renal cysts in our institute and evaluated their eventual malignant potential.
Materials & Methods: Over 7 years renal cysts in our institute which were Bosniak graded based on contrast CT imaging (379 cases). Follow-up as per current guidelines was undertaken and had senior uro-radiologist review in MDT settings. The rate of malignancy outcomes were calculated.
Results: Of 379 cases 71 (18.73%) were Bosniak 1, 176 (46.44%) Bosniak 2, 101 (26.65%) Bosniak 2F, 18 (4.75%) Bosniak 3, and 13 (3.43%) Bosniak 4. Median follow-up (months) ; Bosniak 1 was 1.0, category 2 10.5, category 2F 14, category 3 was 21 and category 4 11 months; median follow-up of all cysts 11.5 months. Of the 2F cysts, 48.51% were not followed up along with 16.67% of category 3 cysts. This was in part due to advanced patient age and comorbidity. Subsequent malignancy diagnosis on definitive intervention was 0% in category 1, 1.70% in category 2, 3.96% in category 2F, 27.78% in category 3, and 61.54% in category 4.
Conclusion: With improved cross-sectional imaging evaluation of Bosniak cysts with dedicated uro-radiologists the expected historical association for increasing Bosniak grades with malignancy seems less than expected. Stringent evaluation of these cysts and their continued follow-up in dedicated renal MDTs is to be encouraged.

ePoster Session 2 Stones / Imaging / Upper Tract Disorders 1, Tuesday 25 June, 0800-0900, Hall 8

P2-1 Offering primary extracorporeal shockwave lithotripsy for ureteric stones, should high skin to stone distance and high density dissuade treatment decisions?

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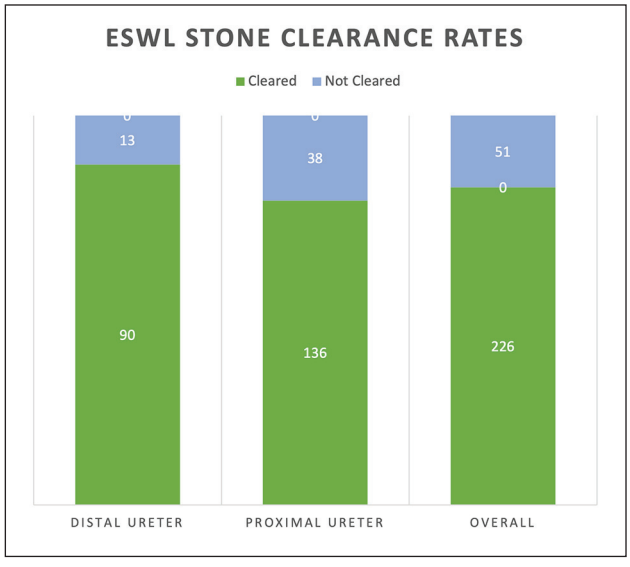
Introduction & Objectives: At our centre, we offer urgent primary ESWL for ureteric stones. Skin-to-stone distance (SSD) and stone density predict success for extracorporeal shockwave lithotripsy (ESWL). High SSD of >10cm and density over 1000 HU can result in poorer success rates. This study aims to assess the effectiveness of our service for stone treatment.
Materials & Methods: In this study, we audited a prospectively-maintained ESWL database from March 2019 to March 2023 of all adults who underwent ESWL for ureteric stones. Treatment suitability was decided in the weekly multidisciplinary stone meeting. Treatment success was determined by complete clearance on follow-up imaging and resolution of symptoms.
Results: During the study period 277/293 patients referred for ESWL for acute ureteric colic completed treatment. Twenty-one patients were stented pre-ESWL. The median decision to treatment time was 9.5 days. Mean size was 8.4mm (SD 2.3), 8.8mm (SD 2.37) and 7.7mm (SD 2.0) for overall, proximal and distal ureteric stones respectively. Most patients had a high SSD with a mean of 12.81 cm (SD 1.86) and the mean density of stones was 1135.6 HU (SD 241.8). Success-rate of ESWL was 87.4% for distal ureter (90/103) and 78.2% (136/174) for proximal ureter.
Conclusions: ESWL for ureteric stones had success rates comparable to literature, although our population had a relatively higher SSD and density which are considered unfavourable factors for success. In the context of a nationalised health service ability to offer urgent ESWL for obstructing stones may help solve problems with increasing ureteroscopy waiting lists.



P2-2 Streamlining the management of small distal ureteric stones using a Stone MDT and virtual clinic approach - Is it safe to discharge small distal ureteric stones with patient initiated follow up?

Mr Saad Siddiqui[1], Mr Abhilash Cheriyan[1], Ms Anna Longshaw[1], Ms Nicola Little[1], Dr Mark Gandhi[1], Mr Nicholas Cohen[1], Mr Ismail El-Mokkadem[1]
[1]Aberdeen Royal Infirmary, Aberdeen, United Kingdom

Introduction: Conservatively managing small distal ureteric stones has been suggested a practical and safe approach in multiple international guidelines. However there remains considerable variation in implementation of conservative management. This study aims to assess the safety and effectiveness of utilising a locally developed standardised management protocol to conservatively manage these patients who are likely to pass the stone spontaneously.
Materials & Methods: In this study, we retrospectively audited all adult patients presenting with unilateral distal ureteric stones sized <4 mm over a 2 year period from October 2020 to 2022. All patients were managed using a standard advice 'should pass letter'. The main aim was to evaluate the rates of re-presentation, intervention in this cohort.
Results: During the study period 448/2446 patients reviewed at the stone MDT were discharged from follow up as they met criteria of small urinary tract stones. Of these 43% (191/448) were patients who met the inclusion criteria and received a 'should pass letter'. Only 1.5% (3/191) of these re-presented to secondary care after discharge. Those who represented were re-imaged, none (0%) needed intervention. Mean virtual follow duration was 1.5 years
Conclusions: We found using a virtual stone clinic with the 'should pass letter' approach a safe mechanism of managing small distal ureteric stones with very low rate of representation. In the context of a nationalised health service this has the prospect of reducing financial burden without compromising patient safety. Extending our study time period and making it a multi-centre is needed to evaluate reliability.

NHS Grampian

Aberdeen Stone Service
Department of Urology, Ward 209
Aberdeen Royal Infirmary
Foresterhill
Aberdeen AB25 2ZN

Direct Line (01224)
Email

NHS Grampian

SS/

CHI:

Date Dictated: 21/10/2023
Date Typed:

Dear

_()

_We have reviewed your recent CT scan in our stone meeting. The CT shows a tiny stone at the lower end of the pipe tube that drains your kidney into your bladder. We would expect a stone of this size to pass by itself within 2-3 weeks time, without needing any intervention or further follow up.

We would simply advise you to prevent further stone formation in the future to increase your fluid intake of clear fluids between 2-3 litres a day, avoid fizzy drinks, red meat and salt in your diet.

We have discharged your back to your Doctor, however, if the pain is persistent for over six weeks please let your Doctor know and we will arrange an appointment for follow up if necessary.

Yours sincerely

P2-3 Virtual biopsy in upper tract urothelial cancers: radiomics and machine learning approach

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Introduction: Upper tract urothelial carcinoma is a rare, aggressive lesion, with early detection a key to its management. This study aimed to utilise computed tomographic urogram data to develop machine learning models for predicting tumour grading and staging in upper urothelial tract carcinoma patients and to compare these predictions with histopathological diagnosis used as reference standards.

Methods: Protocol-based computed tomographic urogram data from 106 patients were obtained and visualised in 3D. Digital segmentation of the tumours was conducted

by extracting textural radiomics features. They were further classified using 11 predictive models. The predicted grades and stages were compared to the histopathology of radical nephroureterectomy specimens.
Results: Classifier models worked well in mining the radiomics data and delivered satisfactory predictive machine learning models. The MultiLayer Panel showed 84% sensitivity and 93% specificity while predicting upper tract urothelial carcinoma grades. The Logistic Regression model showed a sensitivity of 83% and a specificity of 76% while staging. Similarly, other classifier algorithms (e.g., Support Vector classifier) provided a highly accurate prediction while grading upper tract urothelial carcinoma compared to clinical features alone or ureteroscopic biopsy histopathology.
Conclusion: Data mining tools could handle medical imaging datasets from small (<2 cm) tumours for upper tract urothelial carcinoma. The radiomics-based machine learning algorithms provide a potential tool to model tumour grading and staging with implications for clinical practice and the upgradation of current paradigms in cancer diagnostics.

P2-4 Multi-centre study comparing outcomes of retrograde intrarenal surgery (RIRS) using traditional suction ureteral access sheath (SUAS) and flexible-navigable suction UAS (FANS)

Dr Carlotta Nedbal[1,6], Dr Vineet Gauhar[2], Dr Chloe Shu Hui Ong[2], Dr Ben Hall Chew[3], Dr Ho Yee Tiong[2], Dr Chin Tiong Heng[2], Dr Nariman Gadzhiev[4], Dr Jeremy Yuen-Chun Teoh[5], Dr Daniele Castellani[6], Prof Olivier Traxer[7], Prof Bhaskar Kumar Somani[1]
[1]University Hospitals Southampton, NHS Trust, Southampton, United Kingdom, [2]Ng Teng Fong General Hospital, National University Health Systems, Singapore, Singapore, [3]University of British Columbia, Vancouver, Canada, [4]Pavlov First Saint Petersburg State Medical University, Saint- Petersburg, Russian Federation, [5]The Chinese University of Hong Kong, Hong Kong, China, [6]Azienda Ospedaliero-Universitaria delle Marche, Ancona, Italy, [7]Sorbonne University, Hôpital Tenon, Paris, France

Introduction: Technological advancements are aimed at trifecta of successful RIRS: high stone-free rate (SFR), no complications, and minimal retreatment rate. We compare these outcomes in RIRS using a traditional suction ureteral access sheath (SUAS) with the Flexible And Navigable suction UAS (FANS).
Materials and Methods: Patients undergoing RIRS across 5 institutions internationally were retrospectively analysed as an audit, comparing the groups treated with SUAS and with FANS. At 6 weeks post-RIRS, patients underwent a CT to assess SFR, and were classified as no residual fragment (RF), clinically insignificant RF (CIRF), and clinically significant RF (CSRF).
Results: 45 patients were included in each arm, with similar baseline and stone characteristics. Stone dusting (48.9%) and popcorning (95.6%) were carried out in FANS with minimal need for baskets (4.4%), while basket extraction (40.0%) was required in SUAS. Although FANS had longer operative times (65min vs 55min), it had higher rates of 100% SFR (80.0% vs 13.3%), and lower rates of CSRF (8.9% vs 53.3%), CIRF (11.1% vs 33.3%), and

Table 1. Intraoperative characteristics and post-operative complications.

	FANS *N*=45	SUAS *N*=45	*p*value
UAS size (Fr), n (%)			
- 10-12	29 (64.4)	0	<**0.001**
- 11-13	6 (13.3)	33 (73.3)	
- 12-14	10 (22.2)	12 (26.7)	
Ureteroscope characteristics, n (%)			
- 7.5Fr	22 (48.9)	13 (46.4)	>0.99
- Disposable	45 (100)	45 (100)	-
Laser type, n (%)			
- TFL	20 (44.4)	20 (44.4)	>0.99
- MOSES	25 (55.6)	25 (55.6)	
Stone fragmentation technique, n (%)			
- Dusting	22 (48.9)	10 (22.2)	**0.015**
- Popcorning	43 (95.6)	29 (64.4)	**0.001**
- Basket extraction	2 (4.4)	18 (40.0)	<**0.001**

(Continued)

Table 1. (Continued)

	FANS *N*=45	SUAS *N*=45	*p*value
Time (min), median [IQR]			
- Total operation time	65 [50, 80]	55 [44, 65]	<**0.001**
- Laser time	33 [29, 42]	24 [20, 32]	<**0.001**
- Fluoroscopy time	1.20 [1.00, 1.60]	1.10 [0.90, 1.40]	0.142
Complications, n (%)			
- Intraoperative bleeding affecting vision but not needing transfusion	4 (8.9)	14 (31.1)	**0.018**
- Postoperative transient haematuria not needing blood transfusion	0	4 (8.9)	0.125
(CD2)	0	1 (2.2)	>0.99
- Postoperative requirement for blood transfusion (CD2)	5 (11.1)	18 (40.0)	**0.004**
- Postoperative fever (CD2)	1 (2.2)	3 (6.7)	0.609
- Ureteric injury, any cause (CD3)	2 (4.4)	2 (4.4)	>0.99
- PCS injury needing stenting (CD3)	0	0	-
- PCS injury needing PCN (CD3)	2 (4.4)	2 (4.4)	>0.99
- Postoperative sepsis requiring ICU admission (CD4)			
Day surgery, n (%)	37 (82.2)	32 (71.1)	0.319
Residual fragments, n (%)			
- No RF	36 (80.0)	6 (13.3)	<**0.001**
- CIRF (2-4mm)	5 (11.1)	15 (33.3)	**0.022**
- CSRF (RF >4mm, single or multiple)	4 (8.9)	24 (53.3)	<**0.001**
Reintervention for CSRF, n (%)			
- ESWL	0	1 (2.2)	>0.99
- RIRS	2 (4.4)	17 (37.8)	<**0.001**

reintervention for CSRF (4.4% vs 37.8%). Additionally, minor complications such as intraoperative insignificant bleeding (8.9% vs 31.1%) and post-operative fever (11.1% vs 40.0%) were less common in FANS. On additional multivariate analysis, FANS was the only significant factor for higher SFR.

Conclusion: The results of our study demonstrate the superiority of FANS over SUAS due to the added advantage of flexibility and navigability allowing targeted access into individual calyces, thus achieving the trifecta of high single-stage SFR, minimal complications, and negligible reintervention rates.

P2-5 24 hours after Retrograde intrarenal surgery for solitary renal calculi using a Flexible and Navigable Suction access sheath (FANS): Results from a prospective global multicentre study by the EAU section on urolithiasis (EULIS)

Dr Carlotta Nedbal[1,2], Dr Vineet Gauhar[3], Khi Yung Fong[4], Dr Saeed Bin Hamri[5], Dr M.I Gokce[6], Dr M Corrales[7], Dr Soebhali Boyke[8], Dr Deepak Ragoori[9], Dr V Malkhasyan[10], Dr K Tan[11], Prof Bhaskar Kumar Somani[1]

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Introduction: Suction techniques are revolutionising flexible ureteroscopy. We aimed to evaluate intra and peri operative stone free rate (SFR) and complications in first 24hrs after RIRS for solitary renal stones in normal renal anatomy, using Flexible And Navigable Suction access sheath (FANS) in a global multicentre study. As a secondary aim we wanted to assess utility and challenges encountered.

Materials & Methods: Proposed by EULIS ureteroscopy committee, data on adults with solitary renal stone undergoing RIRS using FANS were prospectively gathered from 15 countries. Ethical approval for anonymised registry obtained . Within 24hours, SFR (via non-contract CT), intra and postoperative complications and exit strategy were reported.

Results: Among 142 cases, 11/13F FANS with a disposable scope (77.5%) under general anaesthesia (80.3%) was

used in 86.6% cases, most commonly with TFL. Only 15.5% cases needed stone fragments repositioning with basket. Mean laser-, ureteroscopy- and overall operative-times were 16.5, 35.5 and 48.5min respectively. DJ stent was left in 84.5% cases, overnight ureteric catheter in 9.2% and no drainage in 6.3%, with 12.7% changes from routine exit strategy thanks to FANS. Complications were low, mainly low grade, with no sepsis. Overall SFR was 96.5%. Only 4 patients required reintervention (fragments >4mm).

Conclusions: This global multicentre prospective study, using CT scan as proof-of-concept 24-hours post RIRS with FANS, documents how FANS safely achieved a high immediate single-stage SFR with minimal complications, by effectively using suction to extract fragments/dust and minimising the need for basket and unnecessary stenting.

	Overall (n=142)	
Age	52 [40, 61]	
Indication for intervention		
- Haematuria	6 (4.2)	
- Pain	14 (80.3)	
- Fever	4 (2.8)	
- Incidental	18 (12.7)	
Pre-stented (elective for staged procedure)	70 (49.3)	
Stone diameter (largest)		
- Up to 1 cm	22 (16.2)	
- 1.1-2 cm	93 (68.4)	
- >2 cm	21 (15.4)	
Hounsfield units (HU)	1070 [890, 1212]	
Stone volume (mm3)	1165 [656, 1936]	
General anaesthesia	114 (80.3)	
Disposable scope	110 (77.5)	
Thulium fibre laser	63 (44.4)	
Laser time (min)	16.50 [10.31, 26.82]	
Ureteroscopy time (min)	35.50 [25.00, 59.75]	
Stone basketing (for repositioning only)	48.50 [36.25, 71.75]	
Exit strategy		
- Double J stent	120 (84.5)	
- Overnight ureteric catheter	13 (9.2)	
- No stent or ureteric catheter	9 (6.3)	
Change in surgeon's routine exit strategy practice using FANS	18 (12.7)	
Need to abandon FANS	0	
Complications:		
- Post operative blood transfusion	0	
- Ureteric injury needing stenting	5 (3.5)	
- PCS/forniceal injury needing stent (CD2)	2 (1.4)	
- Incidental perinephric/ureteric fluid extravasation	3 (2.1)	
- Fever	10 (7.0)	
- Sepsis needing ICU	0	
Totally stone free	137 (96.5)	
MVA of 100% stone free		
Male gender	2.067 [0.046 - 4.143]	**0.038**
Stone diameter (vs up-to 1 cm)		
- 1.1-2 cm	0.941 [0.319 - 2.658]	0.909
- >2 cm	0.121 [0.025 - 0.501]	**0.005**
Bone window used on CT (vs abdomen window only)	3.733 [1.636 – 8.954]	**0.002**

P2-6 Analysis of tube placement in a totally tubeless PCNL practice

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Introduction and Objectives: Totally tubeless (TT) percutaneous nephrolithotomy (PCNL) has gained popularity due to a reduction in post-operative pain and faster recovery. However these benefits come at the cost of access for drainage or re-exploration. Surgeons must therefore decide how to balance these risks.

Our review aimed at analysing our non-radiology assisted practice of TT PCNLs, and the factors that determine deviation from this practice.

Methods: We reviewed all patients undergoing PCNL in 2022 – 2023. Data points included demographics, Guys Stone Score, stone and operative factors, reasons for tube insertion and Clavien-Dindo complications.

Results: A total of 146 PCNLs were performed. 86% (n=125/146) were elective, the remainder were emergency (n=21; 14%). The majority were mini- or ultraminiPCNL (95% ; n=138/146). TT accounted for 60% (n=87/146) of cases and 40% (n=59/146) had drainage tubes (Nephrostomy n=29/146; 20% vs. Stent n=30/146; 21%).

The commonest reasons for drainage tubes were residual fragments (52%), poor ureteric drainage (29%), patient factors (19%) and operative complexity (17%). Emergency cases were more likely to require a tube than elective (62% vs. 37%).

The overall complication rate (Clavien-Dindo $\geqslant$3) was 8.9% (n=13/146). In TT cases this was 5.7% (n=5/87). Four TT patients (4.6%) needed decompression after the event. There was no mortality and one tubed patient required transfusion.

Conclusion: A TT approach is safe but an understanding of when to place a tube is paramount. Our study identified some of the important indications. Access to emergency interventional radiology and surgical decompression complements it's safety. Lastly our data reinforces the miniaturisation of PCNL.

P2-7 Day-case mini percutaneous nephrolithotomy (mini-PCN). A feasibility study

Mr Sadeesh Hewa Kodikarage[1], Ms Meghana NarayanaswamyRamachandra[1], Mr YC Phan[1], Ms Samantha Farrington[1], Mr Carl Rowbotham[1], Mr Andreas Auer[1], Mr Mohamed Ismail[1]

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Background and Objective To investigate the safety, efficacy, and feasibility of performing mini-PCN as a day case procedure. We report our experience and outcomes from our case series which to our knowledge is the first reported in the UK.

Material and Methods: A total of 105 procedure performed in 101 patients over 2 years. Patients were positioned prone. Access was achieved by the operating surgeon under fluoroscopic guidance using NaviGuide™ needle (Boston scientific) and the MIP-M system (Karl Storz, Germany). Stones were fragmented with a 550um laser fibre and retrieved by both the Vortex effect and basket. Drainage was achieved with a 6-Fr antegrade stent. Stone related outcomes, duration of surgery, length of stay and complications were recorded.

Results: All cases were completed as planned. Average age is 64. The mean operating time was 93 minutes. A day case rate of 43% was achieved. A total of 22% of patients were admitted for social reasons, 25% for medical comorbidities and 10% for surgical related causes. Average maximum stone length is 18 mm. Guys Score 1 (34%), score 2 (36%), score 3 (21%) and score 4 (9%). Bilateral surgery recorded in 4%. Stone free rate was 87%. Median hospital stay is 1 (range 1-13). One daycase patient was readmitted. Post-operative complications were recorded in 10%.

Conclusion: We have demonstrated that day-case mini-PCN is a feasible and safe procedure in selected patients. A larger number of cases are needed to establish our patient selection criteria and corroborate our early outcomes.

P2-8 Is prophylaxis required for all patients undergoing flexible cystoscopy and ureteric stent removal in the age of antibiotic stewardship?

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Introduction: American Urology Association guidelines recommend antibiotic prophylaxis in patients undergoing cystoscopy and ureteric stent removal. The evidence base is however poor, with wide variation in (inter)national practice.

Methods: A multi-faceted study included a retrospective cohort study of nurse-led Isiris-cystoscope stent removals (178 consecutive patients 1.1.2021-30.6.21), a review of the Hospital Episodes Statistics database, a digital survey of UK stone-nurse specialists (68% response-rate) and a systematic review of the literature.

Results: Of 178 patients, 11% were deemed high-risk and given antibiotics. Using a UTI definition of hospital or community urinary-specific antibiotic use within 28 days, 1.2% of low-risk patients and 10% of high-risk patients had UTI. 28 day re-admission rate for UTI was 0.6% (n=1, low-risk patient). Stent dwell time (median 30days) did not impact UTI rate.

England HES data (1.4.22-31.3.23, code M29.3) identified 11,795 procedures, with 8456 daycases. Mean age 55yrs with 58% male.
33% (n=5) of stone units give prophylaxis for all cases, with 67% (n=10) omitting it for low-risk patients. A survey of the Endourological society (2019) showed 52% (n=148) gave prophylaxis.
There is one RCT(2021, n=58 patients) showing no difference in UTI rate and three cohort studies (n=539) with conflicting results, partly due to UTI definition.
Discussion: The need to base antibiotic decision making on good quality evidence in an age of antibiotic stewardship is vital. We identified a low infection rate and wide variation in practice for this high-volume procedure. Further work is clearly needed to clarify if prophylaxis can be safely omitted for low-risk patients.

P2-9 Preoperative Urine culture vs Renal Pelvic Urine culture: A better predictor of urosepsis in patients undergoing percutaneous nephrolithotomy

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Introduction: Incidence of post Percutaneous nephrolithotomy (PCNL) systemic inflammatory response syndrome(SIRS) ranges between 10% to 35% with a small percent of them progressing to sepsis. Intraoperative urine cultures obtained from the renal pelvis may be of value which can guide antibiotic treatment. Therefore, we

• **Table 1** Comparison of clinical characteristic between SIRS and non-SIRS group

	SIRS n = 54 (33.8%)	Non- SIRS n = 106 (66.3%)	p value
Gender (M:F)	28: 26	58: 48	0.731
Age (years)	45 (25-65)	41(16-64)	0.026*
Body Mass Index (kg/m^2)	28.41 (22.8- 33.6)	27.98 (22.7- 33.1)	0.341
Diabetes mellitus (yes: no)	31: 23	54: 52	0.438
Steroid use (yes: no)	5: 49	5: 101	0.262
Obstructive uropathy (yes: no)	30:24	61;45	0.810
CT value (HU)	1105(861-1349)	1106(856-1356)	0.960
Cumulative stone diameter (mm)	44mm	20mm	0.018*
Struvite calculi (yes: no)	32:22	55:51	0.045*
PBUC (positive: negative)	45:9	7:99	0.001*
RPUC (positive: negative)	39:15	33:73	0.002*
Operation time (min)	129(59-199)	114(62-166)	0.003*
Pre-operative stent (yes: no)	17:37	29:77	0.586
Pre-operative nephrostomy (yes: no)	43:11	89:17	0.495
Post-operative stent	52:2	77:29	.001*
Access(single:multiple)	38:16	89:17	0.045*
Infra:supracoastal	43:11	86:20	0.820

• TABLE 2 -Bacteriological analysis of PBUC And RPUC urine culture

	No of patients(n=54)
Both positive –same organisms in both cultures - different organisms in both cultures	25 (46%) 10 (18%)
PBUC Positive and RPUC negative	9 (16%)
PBUC negative and RPUC positive	6 (11%)
Both negative	4 (7%)

prospectively determined the correlation between preoperative and intraoperative cultures, and evaluated factors associated with post-PCNL SIRS.

Methodology: After obtaining institutional review board approval, patients undergoing PCNL from September 2016 to July 2021 were enrolled in the study. All patients underwent urine culture evaluation prior to the procedure. Renal pelvic urine was collected by retrograde ureteral catheter placement or during initial percutaneous puncture of the pelvicalyceal system.

Results: A total of 160 patients were included in the age group of 20 to 70 years. Preoperative bladder urine culture(PBUC) was positive in 52 cases(32.5%) and treated with culture specific antibiotics before surgical intervention. Renal pelvic urine culture was positive in 72 cases(45%) of which 34 had negative PBUC. Most common pathogen was E-Coli followed by pseudomonas, enterococcus, klebsiella and proteus. Of the 160 patients, 54 patients (33.7%) had evidence of SIRS. Of the patients who developed SIRS, 25(46%) had concordant results with RPUC and PBUC.

Conclusion: Post operative systemic response after PCNL may occur despite a negative preoperative urine culture and the pathogens detected by PBUC are not necessarily consistent with those of RPUC. We recommend collecting pelvic urine in patients with large stone burden since they may be at an increased risk of SIRS.

P2-10 Paediatric percutaneous nephrolithotomy: Predictors of outcomes and validation of pre-treatment scoring systems

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Introduction: While several variables have been shown to predict outcomes in percutaneous nephrolithotomy (PCNL) in children, there is no consensus. Guy's score and Stone Kidney Index/ Score have shown correlation with stone clearance. The aim of this study was to identify predictors of stone clearance and validate the existing pre-treatment scoring systems in paediatric PCNL.

Materials and Methods: After institutional review board clearance, children undergoing PCNL at a single centre between 2010 and 2023 were included. PCNL was performed under general anaesthesia in either prone or supine position. Standard, mini or ultramini PCNL with fluoroscopy or ultrasound guided puncture was performed based on surgeon's preference. Data on patient characteristics, imaging and operative details were obtained from electronic medical records and correlated with clearance and complications.

Results: A total of 106 renal units were included. There was a male preponderance (2:1) with 15% prevalence of chronic kidney disease. Multiple stones were seen in 62% and 29% were staghorn. Standard PCNL was performed in 75%, miniPCNL in 22% and ultramini in 3%. Supine position was used in 12%. Complete clearance was noted in 63.2% and ancillary procedures were required in 17%. Clavien III or higher complications were noted in 16%. On univariate analysis, number, size, type (staghorn or non-staghorn), Guy's score, stone kidney index/ score predicted clearance. On multivariate analysis, only multiple and staghorn calculi were predictive.

Conclusions: Multiple and staghorn calculi were associated with an unfavourable outcome in paediatric PCNL. Scoring systems hold promise and merit evaluation in larger studies.

Table 1. Baseline variables and univariate analysis.

Variable	Stone-free		Failure		Total		P Value
Gender	n	%	n	%	n	%	
Male	47	65.3	25	34.7	72	67.9	0.52
Female	20	58.8	14	41.2	34	32.1	
Chronic kidney disease							
Yes	7	46.7	8	53.3	15	14.2	0.152
No	60	65.9	31	34.1	91	85.8	
Prior treatment							
Yes	23	53.5	20	46.5	43	40.6	0.087
No	44	69.8	19	30.2	63	59.4	
Side							
Right	33	58.9	23	41.1	56	52.8	0.334
Left	34	68	16	32	50	47.2	
Number of calculi							
Single	34	85	6	15	40	37.7	**0.001**
Multiple	33	50	33	50	66	62.3	
Location							
Pelvis	27	90	3	10	30	28.3	**<0.0001**
Middle/ lower calyx	6	66.7	3	33.3	9	8.4	
Upper calyx	2	100	0	0	2	1.9	
Multiple	24	70.6	10	29.4	34	32.1	
Staghorn	8	25.8	23	74.2	31	29.3	
Type of calculus							
Non-staghorn	59	78.7	16	21.3	75	70.8	**<0.0001**
Staghorn	8	25.8	23	74.2	31	29.2	
Stone kidney score							
2	32	86.5	5	13.5	37	34.9	**<0.0001**
3	12	75	4	25	16	15.1	
4	23	43.4	30	56.6	53	50	
Guy's score							
1	29	87.9	4	12.1	33	31.1	**<0.0001**
2	25	69.4	11	30.6	36	34	
3	11	44	14	56	25	23.6	
4	2	16.7	10	83.3	12	11.3	

(Continued)

Table 1. (Continued)

Variable	Stone-free		Failure		Total		P Value
Operation							
Conventional PCNL	43	54.4	36	45.6	79	74.6	0.076
Mini/ ultramini PCNL	24	88.9	3	11.1	27	25.4	
Energy source used							
Ultrasound	34	51.5	32	48.5	66	62.3	**0.002**
Pneumatic lithotripsy	10	100	0	0	10	9.4	
Ultrasound + pneumatic	7	63.6	4	36.4	11	10.4	
Laser	16	84.2	3	15.8	19	17.9	
Age (years)	10 (4, 14)		8 (3.5, 12)		9 (4, 12)		0.141
Creatinine (mg/dL)	0.67 (0.49, 0.83)		0.5 (0.38, 0.7)		0.61 (0.43, 0.82)		**0.043**
eGFR (ml/min)	126.2 ± 63		99 ± 45.3		113.7 (86, 148.3)		**0.02**
Length of calculi (mm)	27.9 ± 17.8		45.5 ± 25.2		34.4 ± 22.4		**<0.001**
Size of calculi (mm^2)	241.8 ± 172.9		609.4 ± 769.1		377.1 ± 514.4		**<0.001**
Stone kidney index	0.3 ± 0.2		0.47 ± 0.23		0.36 ± 0.23		**<0.001**
Surgeon's experience (years)	10 (3, 12.5)		6 (4, 9.5)		8 (4, 12)		0.138
Duration of operation (min)	111.6 ± 42.7		124.5 ± 55.6		116.5 ± 48.1		0.2

ePoster Session 3 Female Urology and Bladder Dysfunction, Tuesday 25 June. 0800-0900, Hall 9

P3-1 9 year analysis of the efficacy, longevity and safety of the Adjustable Transobturator Male System® (ATOMS) in managing Stress Urinary Incontinence (SUI) in men

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Introduction: To investigate the long term outcomes of a cohort of men in the United Kingdom who underwent treatment with the Adjustable Transobturator Male System® (ATOMS) for managing stress urinary incontinence (SUI) between 2015-2019.

Patients & Methods: 71 men (average age: 70.2, range 50-79) were listed for an ATOMS insertion between 2015-2019. 2 patients were excluded from the data analysis: 1lost to follow up, 1 was morbidly obese and completion of surgery was not achieved. Follow up data for up to 9 years were analysed (mean: 5.8, range 5-9). Of this cohort of men, 65 (93%) had SUI post radical prostatectomy and 16 had previous radiotherapy.

Results: Out of the 69 men, 55 (79.7%) were dry after ATOMs insertion (using maximum one pad a day for reassurance) at a 9 year follow up period. This is a higher percentage of dryness compared with the 5 year follow up study (76%), proving long term efficacy of the device. The average number of ATOMS top ups to achieve dryness was 3.

Out of the 14 men who remained incontinent, 5 underwent insertion of an artificial urinary sphincter (7.2%), 3 underwent removal (4.3%) due to infection. 1 had an ileal conduit for bladder cancer, 1 achieved full dryness but deteriorated after 2 years, and 4 never achieved full dryness (and awaiting further management). Of these 14 men, 6 had undergone previous radiotherapy.

Conclusions: The ATOMS device exhibits sustained effectiveness and safety in treating male SUI. Extended follow-up data show no reduction in efficacy.

P3-2 Radiotherapy in men with post prostatectomy incontinence – before or after artificial urinary sphincter insertion?

Mr Bogdan Toia[1], Ms Kelly Ong[1], Mr Richard Nobrega[1], Mr Anthony Noah[1], Ms Helena Gresty[1], Ms Mahreen Pakzad[1], Mr Jeremy Ockrim[1], Ms Tamsin Greenwell[1], Efstathios Papaefstathiou[1]
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Introduction: Pelvic radiotherapy for prostate cancer negatively impacts continence outcomes with artificial urinary sphincters (AUS). There is no literature data comparing the effects of radiotherapy before and after sphincter insertion.
Patiensts and Methods: We retrospectively reviewed case notes of men who underwent AUS insertion between 2014 and 2018 due to incontinence following prostate cancer treatment. Patients were categorized into three groups: no radiotherapy (control), radiotherapy before AUS insertion (pre-AUS RT), and radiotherapy after insertion (post-AUS RT). All men also had surgical treatment.
Results: Among 63 men (mean age 70), 69 artificial sphincters were inserted with a mean follow-up of 57 months. Fifteen men had previous failed stress incontinence surgery. Best continence results were observed in the post-AUS RT group (100%, but only 3 men), followed by the control group (85% 23/27 men), and pre-AUS RT group (62% 13/21 men), though not statistically significant ($p = 0.10$). Explantation rates were lowest in men without prior stress incontinence surgery, 15% (7/48 men) vs. 40% (6/15 men), p=0.034, but had no association with the three study groups ($p = 0.826$). Causes included erosion and traumatic catheterisations elsewhere, infection and fluid leak.
Two men, previously continent for 3 and 7 years, developed metastatic disease during follow-up and required two pads per day shortly after initiating androgen deprivation therapy.
Conclusions: This preliminary data suggests that administering radiotherapy after artificial urinary sphincter insertion might balance treatment and long-term functional outcomes. Additionally, the introduction of hormone therapy may negatively impact continence.

P3-3 Effective Psychological Interventions for Functional Urological Disorders: Outcomes from the Urology Psychology Service Pilot

Miss Rebecca Adam[1], Dr Lynda Teape[1], Miss Suzanne Biers[1], Miss Felicity Reeves[1], Mr Nikesh Thiruchelvam[1]
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Introduction: The well-established link between psychological factors and functional urological conditions contrasts with the limited research on the effectiveness of psychological treatments for these disorders and utilisation/application within NHS services. This abstract summarises a 12-month pilot of the Urology Psychology Service, which offered psychological interventions to patients with these conditions.
Patients and Methods: Patients referred from the Urology Department (90% female) received individualised psychological support. Diagnoses included Bladder Pain Syndrome/Interstitial Cystitis (52% of referrals), Recurrent UTIs, Voiding Dysfunction, Fowler's Syndrome, Chronic Pelvic Pain, and Urinary Incontinence. Interventions comprised 8 to 12 one-on-one sessions using psychoeducation, CBT, and third-wave therapies. Effectiveness was assessed using the Patient Health Questionnaire-9 and Generalized Anxiety Disorder-7, self-report measures for evaluating depression and anxiety levels, and the Measure Yourself Medical Outcome Profile, a tool for assessing changes in symptoms, daily functioning, and overall well-being.
Results: Of 42 referred patients from March to November 2023, 9 were signposted to alternative services due to severe mental health issues, and 7 patients declined participation. At the time of writing, 7 patients (6 female, 1 male, aged 17-42) had completed the program. Significant improvements were observed: 71% reported improved bladder symptoms, 86% showed reduced depression scores and engaged more in meaningful activities, and all experienced less anxiety and enhanced well-being.
Conclusions: The Urology Psychology Service positively impacted psychological well-being and urological symptom management. These results support integrating psychological services into urology care, potentially reducing healthcare burdens, and improving outcomes. The pilot will extend for another year for broader data collection.

P3-4 A review into the current status of paediatric urology transition services in the UK

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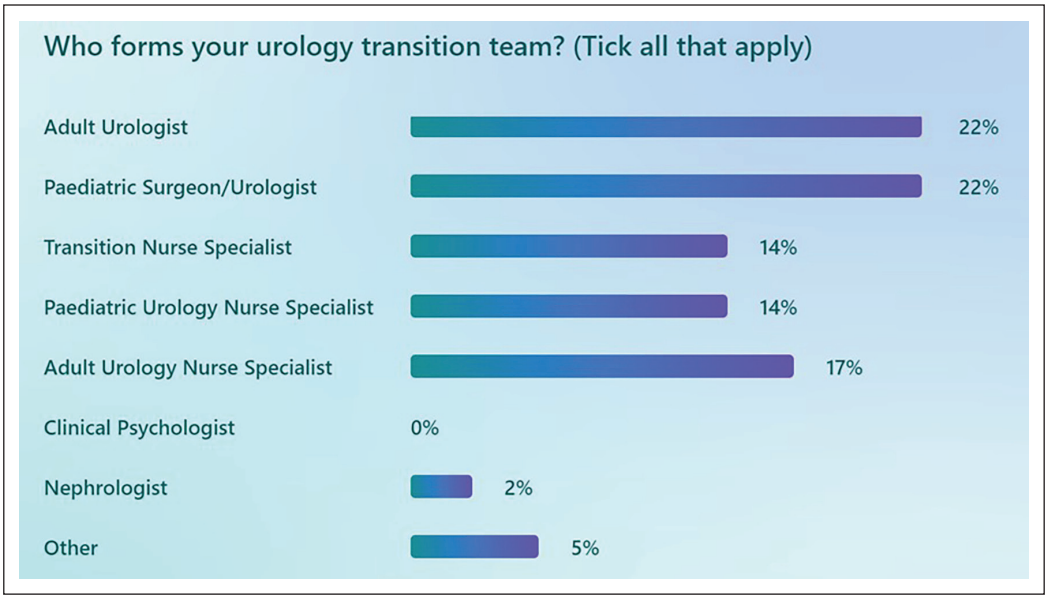
Introduction: NICE defines quality standards (QS140) for the care of transitioning patients from paediatric to adult healthcare services. With improving therapies and increased awareness, good transitional services are becoming ever more important. We aimed to review the current status of urology transition services in the UK.
Methods: An online questionnaire was assembled and reviewed by members of our transition clinic. This was distributed via email to each of the 26 paediatric surgery departments in the country. Results were gathered, patterns and themes identified.



Results: Fourteen questionnaires were completed. Six (43%) reported having a formal urology transition service; three (21%) transition certain patients or conditions only and five (36%) have no transition service. Most (n=7;50%) held face-to-face multidisciplinary clinics, every 2-3 months (n=4;44%), for 10-20 patients each time (n=4;44%). Age and shared decision-making were the most common ways to assess readiness for transition (n=5;36% each), however fewer used a validated tool (n=2;21%). Patients are typically seen from 14-16yrs (n=6;67%) until 16-17yrs (n=5;56%).

Conclusion: In comparison to a similar survey from the US, we demonstrate similar rates of formal paediatric urology transition service (32% US vs.43% UK), however there appears to be more multidisciplinary input in the UK. Results show promising and extensive services, however they are currently not yet comprehensively meeting the NICE quality standards, of those assessed by this questionnaire. Up to 78% started transition at an appropriate time, up to 35% had a named coordinating professional and up to 78% meet their adult practitioner prior to transition.

P3-5 Intravesical Gentamicin: Is it the new Gold Standard to manage Refractory Urinary Tract Infections? – Experience from a dedicated complex UTI clinic

Dr James Leighton[1], Mr Inyang Ekpeno, Miss Jayne Morris-Laverick, Miss Stephanie Bezemer, Dr Igor Kubelka, Dr Victoria McCune, Miss Mehwash Nadeem, Dr James Leighton[2]

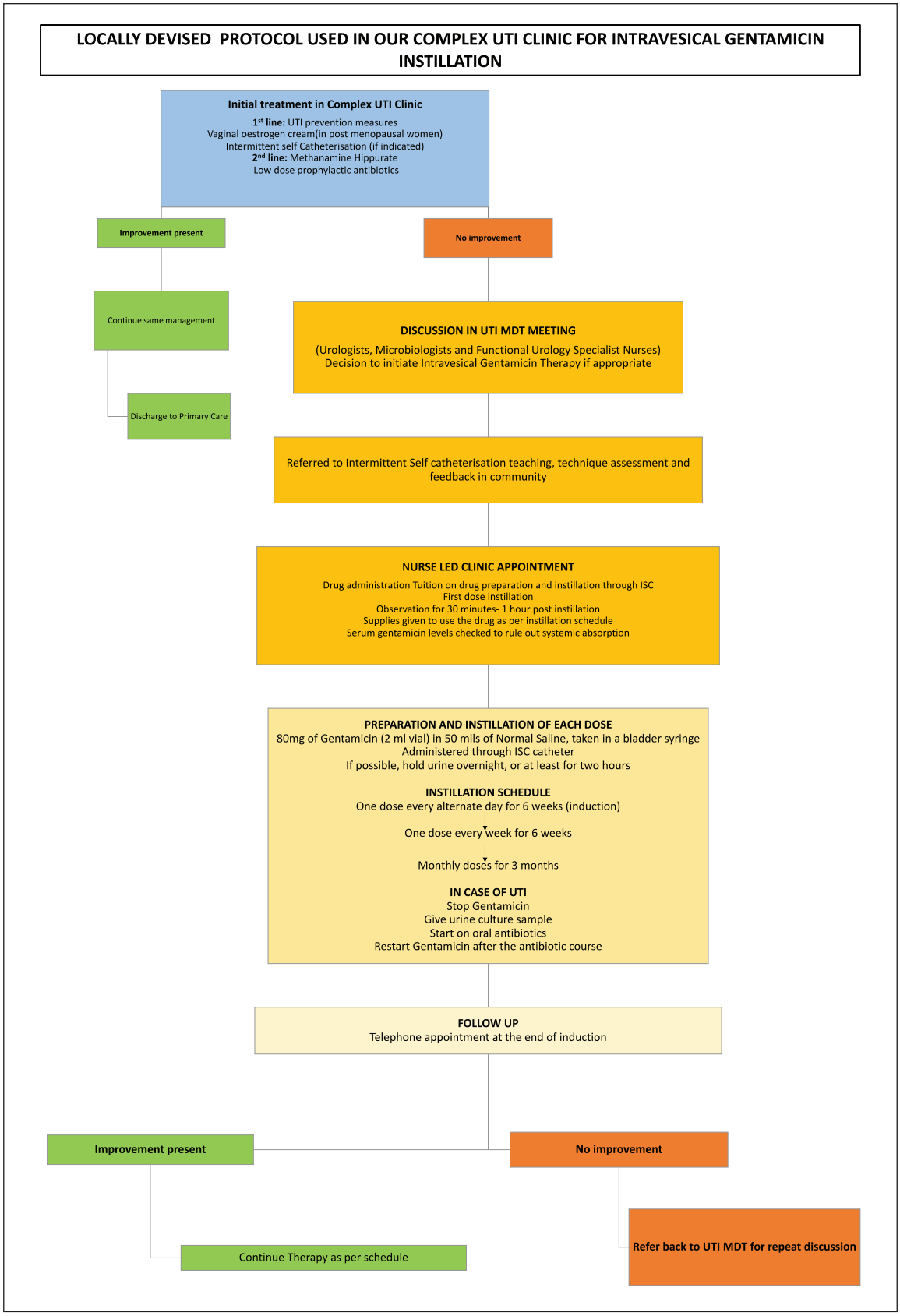
[1]South Tees Nhs Hospitals Foundation Trust, Middlesbrough, United Kingdom, [2]The Newcastle Upon Tyne Hospitals NHS Foundation Trust, Newcastle, United Kingdom

Introduction: Recurrent Urinary tract infections (rUTIs) are challenging to manage, and their persistence and relapse after treatment warrant a different management approach. Our aim was to assess the efficacy of intravesical Gentamicin in this difficult-to-treat cohort.

Materials and Methods: A single-centre cohort study was conducted between May 2021- May 2023 including the patients seen in complex UTI clinic, who subsequently received Intravesical Gentamicin therapy (locally devised protocol, Figure-1) as a tertiary treatment after MDT discussion. Patients' demographics, comorbidities, urine culture and sensitivities, and treatment outcomes (reduction in UTI frequency and urosepsis, Symptomatic and Quality of Life Improvement) were recorded.

Results: 41 patients were included [Male: 10, Female:31, Mean age: 54+/-16.78]. 40 (98%) patients had significant comorbidities including 11 (27%) who were immunocompromised and 49% with underlying neuropathy. 19 (46%) patients had E. coli isolated from urine cultures however, 44% had multidrug resistance pattern with UTI frequency of >6 episodes/ year in over 70% patients. Mean follow up was 15 months. Post treatment, hospital admission rates due to urosepsis reduced from 46% to 5 % and multidrug resistance on the urine cultures reduced from 44% to 10% (p-value= 0.005). 80.5% (n=33) patients showed significant reduction in the frequency of UTIs with 71% patients reporting good to excellent PGI-I (Patient Global Impression of Improvement) score and significant improvement in quality of life (p-value= 0.000). Serum gentamicin levels were undetectable in all patients at one week after initiation of treatment.

Conclusions: Intravesical Gentamicin therapy is safe and effective in treating refractory recurrent UTIs


LOCALLY DEVISED PROTOCOL USED IN OUR COMPLEX UTI CLINIC FOR INTRAVESICAL GENTAMICIN INSTILLATION
Initial treatment in Complex UTI Clinic
1st line: UTI prevention measures
Vaginal oestrogen cream(in post menopausal women)
Intermittent self Catheterisation (if indicated)
2nd line: Methanamine Hippurate
Low dose prophylactic antibiotics
Improvement present
No improvement
Continue same management
Discharge to Primary Care
DISCUSSION IN UTI MDT MEETING
(Urologists, Microbiologists and Functional Urology Specialist Nurses)
Decision to initiate Intravesical Gentamicin Therapy if appropriate
Referred to Intermittent Self catheterisation teaching, technique assessment and feedback in community
NURSE LED CLINIC APPOINTMENT
Drug administration Tuition on drug preparation and instillation through ISC
First dose instillation
Observation for 30 minutes- 1 hour post instillation
Supplies given to use the drug as per instillation schedule
Serum gentamicin levels checked to rule out systemic absorption
PREPARATION AND INSTILLATION OF EACH DOSE
80mg of Gentamicin (2 ml vial) in 50 mils of Normal Saline, taken in a bladder syringe
Administered through ISC catheter
If possible, hold urine overnight, or at least for two hours
INSTILLATION SCHEDULE
One dose every alternate day for 6 weeks (induction)
One dose every week for 6 weeks
Monthly doses for 3 months
IN CASE OF UTI
Stop Gentamicin
Give urine culture sample
Start on oral antibiotics
Restart Gentamicin after the antibiotic course
FOLLOW UP
Telephone appointment at the end of induction
Improvement present
No improvement
Continue Therapy as per schedule
Refer back to UTI MDT for repeat discussion

P3-6 Medical-grade Manuka honey and a sugar-free Manuka honey extract inhibit allergic IgE-induced mast cell degranulation: Potential role as intravesical agents in Interstitial Cystitis/ Bladder Pain Syndrome (BPS/IC)

Dr Omar Abdelwahab[1], Mr Oliver Miller[3], Professor Bashir Lwaleed[1], Honorary Associate Professor Brian Birch[2]

[1]School of Health Sciences, University of Southampton, Southampton, United Kingdom, [2]University Hospital Southampton NHS FT, Southampton, United Kingdom, [3]Faculty of Medicine, University of Southampton, Southampton, United Kingdom

Introduction & Objectives: Mast cells numbers and activity are significantly elevated in several inflammatory conditions including interstitial cystitis (IC/BPS). Although mast cell activation in IC/BPS is believed to be induced by interaction between mast cells and bladder sensory nerve fibres, recent evidence supports a contribution of allergic inflammation to the pathophysiology of the disease, especially in its ulcerative form.

Medihoney® (MH) is a medical grade Manuka honey with strong anti-microbial properties. Recent reports also suggest it has anti-inflammatory properties via inhibition of histamine release by mast cells.

In this study, we investigated the anti-inflammatory effect of MH and a sugar-free Manuka honey extract (EX) against allergic inflammation by studying its effect on the mast cell degranulation induced by IgE.

Materials & Methods: LAD-2 human mast cells were pre-incubated overnight with 100 ng/ml of human myeloma IgE, then activated by 1% anti-human IgE for 40 minutes with or without 20-minute pre-incubation with 4, 2, and 1% of MH or EX. Degranulation was assessed by measuring release of the lysosomal enzyme β-hexosaminidase.

Results: Both MH and EX induced significant dose-dependent inhibition of the IgE-induced mast cell degranulation culminating at 85% and 100% inhibition, respectively, at 4% concentration (Figure 1A and 1B).

Conclusion: MH and EX potentially inhibit allergic IgE-induced mast cell degranulation. Our findings suggest that Manuka honey preparations might potentially inhibit allergic tissue inflammation. Aqueous preparations of MH and EX (used intravesically) could be useful as anti-inflammatory agents directed against the allergic inflammation involved in the pathophysiology of IC/BPS.

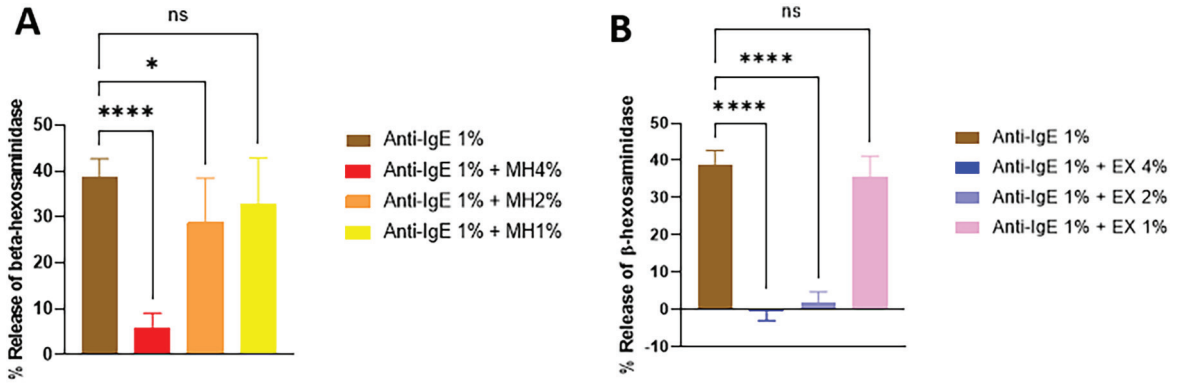


Figure 1: The effect of Medihoney, Manuka extract (5x) and Ethanol on the anti-IgE-induced β-hexosaminidase from LAD2 cells

Percentage release of β-hexosaminidase by LAD2 cells following induced by 40-minute incubation with anti-IgE 1% with or without 20-minute pre-incubation with 4, 2 and 1% concentrations of Medihoney (MH) (**A**) or Manuka honey extract (EX) (**B**). The mean ± SEM for the spontaneous release was 6.5% of the total value. The overall cellular content of β-hexosaminidase (total) was prepared by completely lysing the cells in 1% Triton-X in 1X PBS. MEach bar represents mean ± SEM (* P value <0.05, **** P value <0.0001, n=4). The graph represents the results of 4 independent assays. Analysis was performed by one-way ANOVA test using GraphPad Prism 9 software.

P3-7 Efficacy and Safety of Oral Gepotidacin in the Treatment of Uncomplicated Urinary Tract Infection: Results of Two Randomised, Multicentre Phase 3 Trials (EAGLE-2 and EAGLE-3)

Prof. Florian Wagenlehner[1], Dr Caroline Perry[2], Prof. Thomas M. Hooton[3], Ms Nicole E. Scangarella-Oman[2], Dr Helen Millns[4], Dr Hwa-ping (Ed) Feng[2], Dr Marcy Powell[2], Ms Emily Jarvis[4], Dr Jeremy Dennison[5], Dr Amanda J. Sheets[2], Ms Deborah Butler[2], Mr John Breton[2], Dr Salim Janmohamed[5]

[1]Justus-Liebig-University, Giessen, Germany, [2]GSK, Collegeville, USA, [3]University of Miami, Miami, USA, [4]GSK, Stevenage, UK, [5]GSK, Brentford, UK

Introduction: Uncomplicated urinary tract infections (uUTIs) are common worldwide, however, there is an unmet need for new oral antibiotics against resistant uropathogens. Gepotidacin, a novel, bactericidal, first-in-class triazaacenaphthylene antibiotic, inhibits bacterial DNA replication by a unique mechanism of action and binding site and is under investigation for uUTI treatment.

Patients and Methods: EAGLE-2 and EAGLE-3 were global Phase 3, randomised, parallel-group, double-blind, non-inferiority studies comparing efficacy and safety of oral gepotidacin (1500mg BID, 5 days) to nitrofurantoin (100mg BID, 5 days), for uUTI treatment in females aged ⩾12 years with ⩾2 uUTI symptoms and urinary nitrite or pyuria. Per FDA guidance, the primary endpoint, therapeutic response at test-of-cure (Days 10–13), was evaluated in patients with qualifying uropathogen(s) ($\geqslant 10^5$ CFU/mL) susceptible to nitrofurantoin. Success was complete symptom resolution and reduction of uropathogen(s) to $<10^3$ CFU/mL without additional systemic antimicrobial use. Results are from predefined interim analysis with efficacy/futility stopping criteria, conducted by an Independent Data Monitoring Committee (IDMC).

Results: A total of 2986 randomised patients (EAGLE-2: N=1474; EAGLE-3: N=1512) were included in the analysis. See Table for key efficacy results that led the IDMC to recommend stopping for efficacy (non-inferiority) with no concerning safety findings.

Conclusions: In these large studies using the latest FDA efficacy endpoint, gepotidacin demonstrated non-inferiority in one trial and superiority in the other versus nitrofurantoin in the treatment of uUTI, with an acceptable safety profile. Gepotidacin may be a useful uUTI treatment option; its evaluation in Phase 3 trials is vital in addressing significant unmet need.

Table. Therapeutic, clinical, and microbiological response at test-of-cure (data available to IDMC)

Endpoint	Gepotidacin 1500 mg BID	Nitrofurantoin 100 mg BID	Treatment Difference (Gepotidacin – Nitrofurantoin) (95% CI)*
EAGLE-2	**N=320**	**N=287**	
Therapeutic Success	162 (50.6%)	135 (47.0%)	4.3% (-3.6%,12.1%)
Clinical Success†	210 (65.6%)	187 (65.2%)	1.2% (-6.3%, 8.7%)
Microbiological Success‡	232 (72.5%)	194 (67.6%)	5.2% (-2.1%, 12.5%)
EAGLE-3	**N=277**	**N=264**	
Therapeutic Success	162 (58.5%)	115 (43.6%)	14.6% (6.4%, 22.8%)
Clinical Success†	188 (67.9%)	167 (63.3%)	4.4% (-3.5%, 12.3%)
Microbiological Success‡	200 (72.2%)	151 (57.2%)	15.0% (7.2%, 22.9%)

Study success rules were based on pre-defined interim analysis rules. Both studies were stopped for non-inferiority as the observed Z statistics of 3.5554 (EAGLE-2) and 5.8838 (EAGLE-3) were greater than the non-inferiority boundaries of the respective studies (2.065 for EAGLE-2 and 2.098 for EAGLE-3). Following pre-specified hierarchical testing strategy, superiority was then demonstrated in EAGLE-3 (observed one-sided p-value of 0.0003 less than the superiority boundary [0.018]).

*Calculated using Miettinen-Nurminen test adjusting for age and recurrence history. †Defined as complete resolution of symptoms. ‡Defined as reduction of uropathogen(s) from $\geq 10^5$ CFU/mL to $<10^3$ CFU/mL.

These endpoints were evaluated in patients with all qualifying uropathogens determined to be susceptible to nitrofurantoin.

BID, twice daily; CFU, colony-forming units; CI, confidence interval; IDMC, Independent Data Monitoring Committee.

P3-8 Management of Female Urethral Strictures (FUS) with Ventral-onlay buccal mucosa graft substitution urethroplasty (VOBMG) - Is this the best treatment?

Mr EFSTATHIOS PAPAEFSTATHIOU[1], Mr Brendan Berry[1], Prof Osman Köse[2], Mr Ala'a Sharaf[1], Ms Amna Butt[1], Mr Richard Nobrega[1], Mr Anthony Noah[1], Ms Helena Gresty[1], Ms Mahreen Pakzad[1], Mr Jeremy Ockrim[1], Ms Tamsin Greenwell[1]

[1]UCLH, London, United Kingdom, [2]Sakarya University, Faculty of Medicine, Gynecological Oncology Cinic, Sakarya, Turkey

Introduction: Urethroplasty is gaining popularity for treating FUS, yet there is limited evidence to inform the selection of the specific urethroplasty procedure. This study presents the medium to long-term results of VOBMG as a treatment for FUS.

Materials and Methods: A retrospective analysis of 89 women (median age:50 years, range(R):27-78) who underwent VOBMG urethroplasty for FUS since June 2012 was performed. This procedure was performed by three surgeons across two countries. Data was analysed for stricture recurrence, changes in median peak free flow rate(Qmax), median post-void residuals(PVR), and Patient Global Impression of Improvement(PGII)(Likert scale,1=very much better). Short and long-term surgical complications were documented. Statistical analysis included Wilcoxon signed-rank test, Student's t-test, and Mann-Whitney U test.

Results: Median follow-up was 31 months (range,R:6-112), with 84/89(94.4%) of the patients remaining stricture free. Recurrence occurred in 13 cases(14.6%) and was addressed through meatotomy(n=1), meatal dilatation (n=7), redo-VOBMG urethroplasty(n=4), and vaginal flap meatoplasty(n=1), resulting in resolution for 10 cases (76.9%). Mean Qmax significantly improved from 6 ml/s (R:0-24) to 117.9 ml/s(R:3-35)($p<0.05$). Mean PVR significantly reduced from 100ml(R:0-889) to 20ml(R: 9-245) ($p < 0.05$). Both short and long-term complication rates were minimal. At 12 months the median PGII score was 1(1-4). The satisfaction level was maintained up to 36 months post-operatively.

Conclusions: This is the largest VOBMG series for FUS with excellent mid- to long-term outcomes. Stricture free rates were 85.4% after 1st urethroplasty and 94.4% at last follow-up. Qmax, PVRs and PGII score were significantly improved.

P3-9 Robotic ureteric reimplantation for benign disease in a tertiary UK centre: safe and effective

Mr Samuel Folkard[1], Miss Martina Spazzapan[1], Dr Harry Sharples[1], Dr Lucy Chapman[1], Mr Calum Clark[1], Mr Shamim Khan[1], Mr Raj Nair[1], Mr Sachin Malde[1], Mr Arun Sahai[1]

[1]Guy's Hospital, London, United Kingdom

Introduction: Robotic ureteric reimplantation has small patient numbers reported in worldwide literature. The underlying aetiology is heterogenous and there is limited evidence on outcomes. We report our experience of benign robotic ureteric reimplantation.

Materials and Methods: 67 consecutive patients underwent benign ureteric reimplantation between 2016 and 2023.

Primary outcome measures were any evidence of radiological obstruction post ureteric reimplantation and whether the patient remained free of stents or nephrostomies following surgery. Secondary outcome measures included post-operative complications, change in postoperative renal function and length of stay.

Results: Indications are shown in Table 1. 40 females and 27 males underwent robotic reimplants, 64/67 (96%) were distal. There was one conversion to open in 2016.

Mean follow-up was 709 days. 2 (3%) patients showed some dilatation on follow-up imaging. One had a re-do reimplant; the other has not required intervention. All patients are free of stents or nephrostomies.

There was no significant deterioration in renal function, with an average change in creatine of -2mmol/L (±12.5 mmol/l, p=0.07). There was one Clavien 3b complication, requiring a GA cystoscopy and dilation for a bladder neck

Aetiology		MAG-3 post-op	Length of stay (median)
Urological	**36**	23	2
Stricture	23		
Diverticulectomy	5		
Redo reimplant	2		
Gynaecological	**30**	13	3
Injury	27		
Planned excision	3		
Colorectal	**1**	0	6
Total (%)	**67**	**36 (54%)**	**2 days**

and ureteric stricture and 11 Clavien 2 complications. One patient who had radiotherapy prior to reimplant had a cystectomy for subsequent development of a high pressure bladder.

Conclusion: Robotic ureteric reimplantation is a safe procedure with high success rate and low complication rates. 3 monthly and 12 monthly MAG-3 renograms would have captured all problems in the non-radiotherapy population.

P3-10 Urethral pressure profile (UPP) and external urethral sphincter electromyography (EUS-EMG) in the diagnostic pathway of women with idiopathic non-obstructive urinary retention (NOUR): are they necessary before a trial of sacral nerve stimulation (SNS)?

Mr Alejandro Mercado-Campero[1], Dr Marc Furrer[1], Miss Habiba Yasmin[1], Mr Richard Nobrega[1], Mr Anthony Noah[1], Ms Helena Gresty[1], Mr Jeremy Ockrim[1], Prof Jalesh Panicker[1], Ms Tamsin Greenwell[1], Ms Mahreen Pakzad[1]

[1]University College London Hospitals Nhs Foundation Trust, London, United Kingdom

Introduction: An abnormal EUS-EMG has been associated to elevated maximal urethral closure pressure (MUCP) and better SNS outcomes in NOUR patients. However, EUS-EMG is not widely available in urological practice. This study aimed to assess MUCP as an alternative to predict EUS-EMG results in NOUR patients and to correlate urodynamic parameters, MUCP and EUS-EMG with SNS outcomes.

Patients and Methods: Retrospective study including UPP and EUS-EMG from 200 women with NOUR referred to a U.K. specialist centre between 2015-2022. Urodynamic parameters from filling cystometry and pressure-flow studies were collected when available. All SNS trials were staged procedures done with a tined lead and success defined as $>$50% clinical improvement. P values $<$0.05 were considered for statistical significance.

Results: MUCP was higher in abnormal (92.5$\pm$28.0cm H2O, n=86) vs normal EUS-EMG patients (78.2$\pm$28.4cm H2O, n=114) ($p<0.001$), but poorly predicted EUS-EMG result (AUC=0.64 in ROC analysis). Fifty-one (25.5%) SNS trials were performed; 41(80.4%) were successful. Failure rates were not statistically different in abnormal (22.6%) vs normal EUS-EMG (15%) or MUCP$\leq$100cmH2O (20.5%) vs $>$100cmH2O (16.7%) (p=0.648). Urodynamic reports were available from 34/51(66.7%) patients. MUCP, EUS-EMG and outcome of SNS did not correlate with the presence of bladder outlet obstruction (n=13), detrusor hypocontractility (n=5) or acontractility (n=14).

Conclusion: MUCP cannot predict EUS-EMG result. Moreover, neither MUCP, EUS-EMG result or other urodynamic parameters correlated with SNS outcome in women with NOUR. This raises the question as to whether we should offer SNS to NOUR patients solely based on symptoms. Larger prospective studies are required to answer this question.

ePoster Session 4 Andrology, Genitourethral Reconstruction, Infertility & Male Genital Cancers, Tuesday 25 June, 0800-0900, Hall 10

P4-1 Clinical Pathway for Painful Nocturnal Erections (PNE): A Prospective Single-Centre, Observational Cohort Study

Mr Ameer Alarayedh[1], Mohamed Gad[1], Kenji Tomita[1,2], Celina J Pook[1,2], Muza Rexford[1], Igualada-Martinez Paula[1], Colette Pollard[1], Arunan Sujenthiran[1], Joerg Steier[1,3], Tet Yap[1]

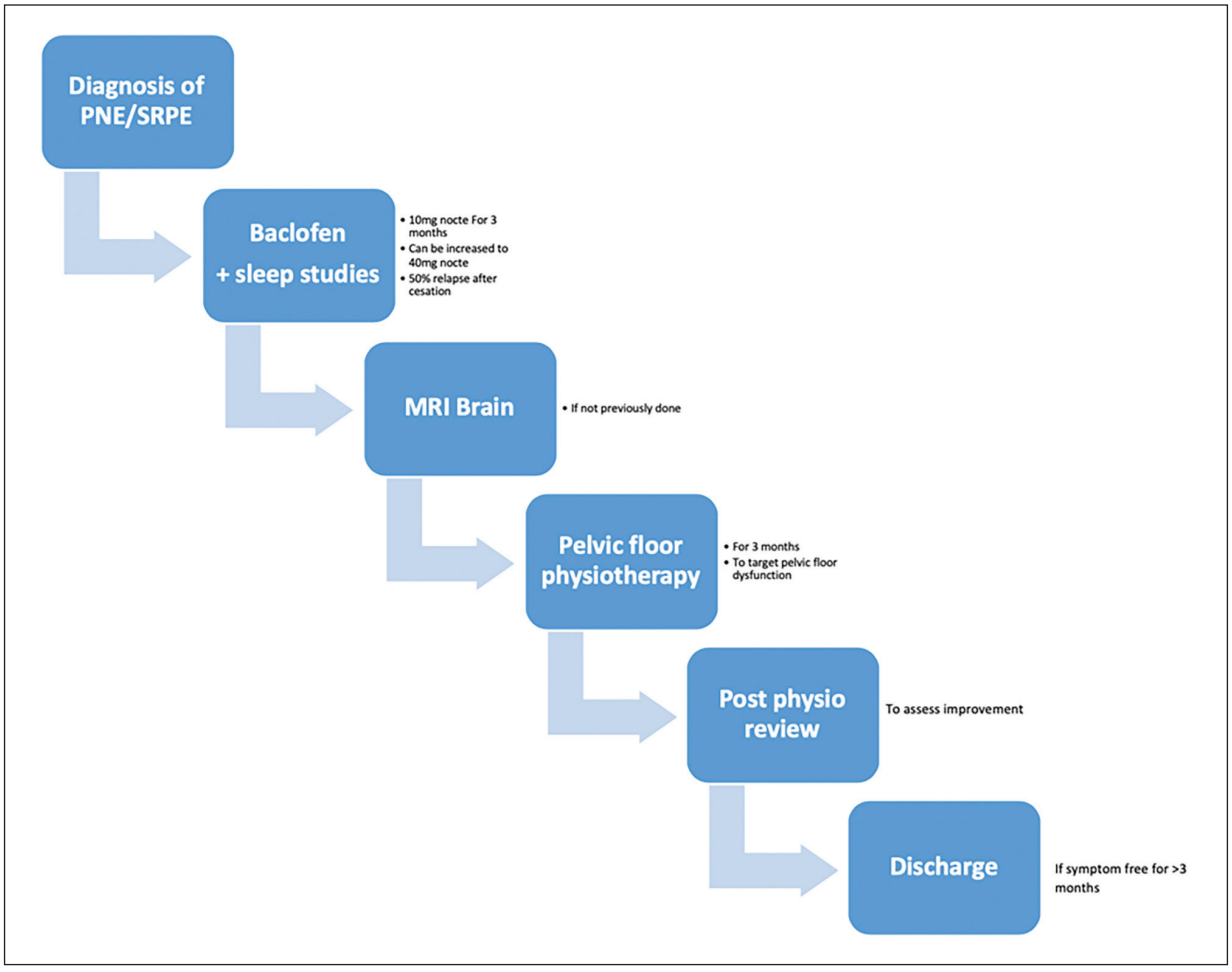
[1]Guy's and St Thomas' NHS Foundation Trust, United Kingdom, [2]GKT School of Medical Education, King's College, United Kingdom, [3]Faculty of Life Sciences and Medicine, King's College, United Kingdom

Background: Painful nocturnal erections is a parasomnia of unknown aetiology exclusive to REM sleep which leads to significant daytime fatigue and impaired quality of life. Due to the absence of a standardized treatment pathway we introduced a novel approach and examined its benefits in alleviating symptom burden.

Patients and Methods: From 2019-2022 patients were prospectively recruited into a treatment pathway following diagnosis of PNE through strict criteria (Vreugdenhil et al. J Sex Med 2018;15:5-19). Assessment included a comprehensive questionnaire, bloods, imaging and polysomnography. Patients received Baclofen for three months, followed by pelvic floor physiotherapy (PFP) and/or sleep medication. Symptom changes were evaluated at 3, 6 and 12 months.

Results: 19 patients with PNE causing significant sleep disturbance were enrolled. The mean age was 46 (28-67) years. 13 patients (68%) experienced nightly PNE with a mean of 3.3 episodes per night (range 1-7 times) and a reported mean duration of 33 (range 10-75) minutes. 16 patients (84%) completed the sleep study with a mean sleep efficiency of 75% and 8 (42%) proceeded to pelvic floor physiotherapy after failure of initial Baclofen treatment. By 12 months, 5 patients (26%) were successfully discharged on Baclofen alone and 7 (37%) experienced symptom improvement with a combination of Baclofen, PFP and/or sleep medication.

Conclusion: Utilizing this multi-modal pathway we observed a reduction in the frequency and intensity of PNE episodes in our cohort. This offers a promising framework for managing PNE but further investigations to refine this pathway for enhanced patient outcomes is warranted.



P4-2 Exploring the Complexities of Problematic Pornography Use: An Unveiling of Its Impact on Mental and Sexual Health

Mr Ibrahim Samy[1,2], **Miss Nadine Elshafei**[3], **Mr Tet Yap**[1]

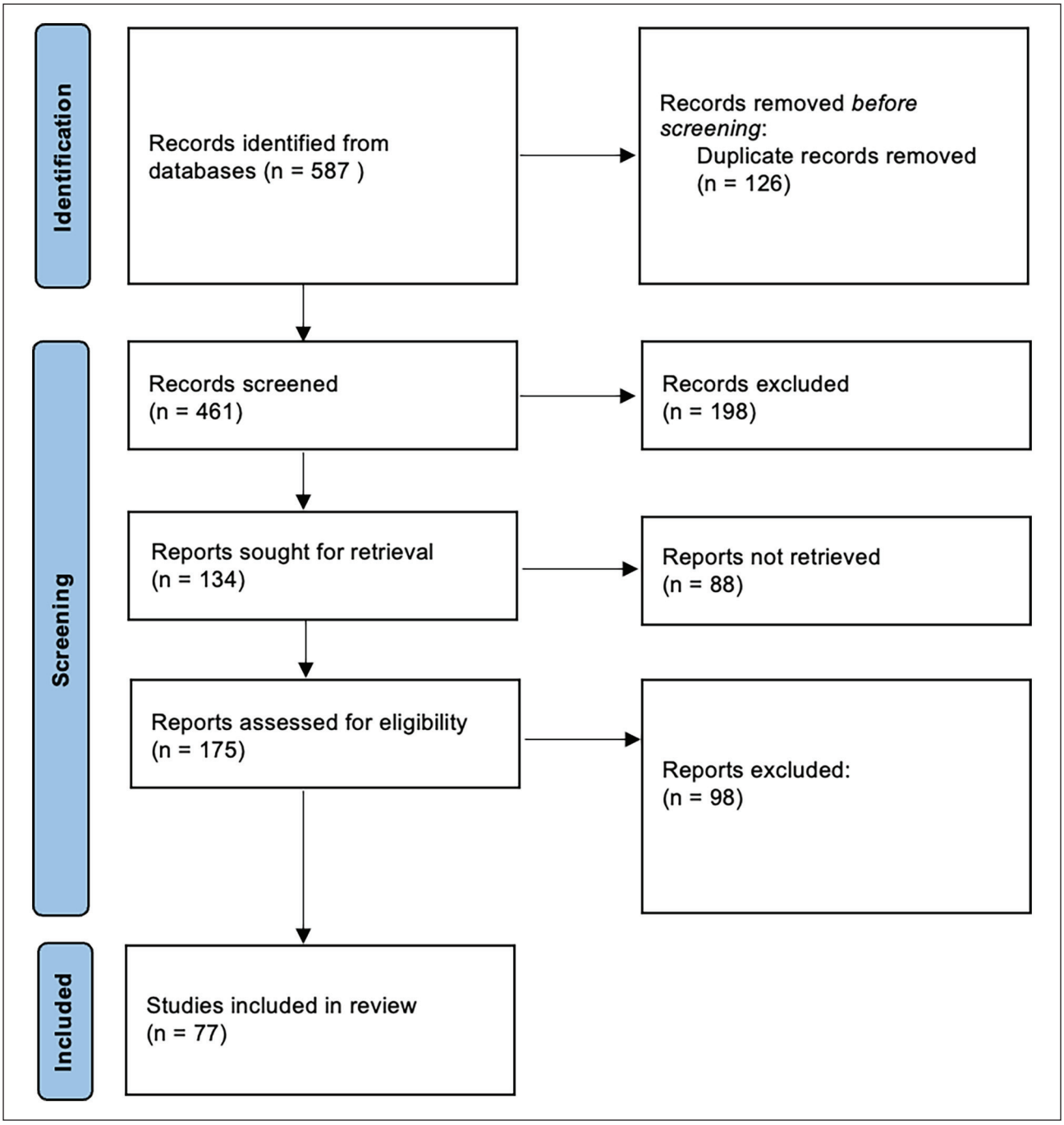
[1]Guy's And St Thomas' Nhs Trust, London, United Kingdom, [2]Cairo University Hospitals, Cairo, Egypt, [3]American University in Cairo, Cairo, Egypt

Introduction: Problematic internet pornography has a direct effect on mental and sexual health. In this systematic review, our aim is to gather and analyze information to provide an assessment of the potential harms and benefits associated with pornography consumption in people under the age of 40.

Methods: This systematic review was conducted in accordance with (PRISMA) statement, conducting searches across Scopus, PubMed, PsycINFO, and EMBASE,from 1991-2022.

Results: The results were measured by the quantity (frequency of pornography use–FPU) and severity (problematic pornography use–PPU) of pornography use with respect to sexual functioning problems. PPU was assessed by the Problematic Pornography consumption scale.3.6% were at risk of PPU, 16.8% represented low risk, and 79.5% non-problematic users. Males tend to develop a stronger dependence on pornography than females. Loneliness, boredom, and social distancing contribute to increased pornography consumption. Sexual dysfunctions associated with pornography, including erectile dysfunction, delayed ejaculation, premature ejaculation, and the risk of addiction. Treatment: Paroxetine has shown to be effective, but other dysfunctions may occur. Naltrexone showed positive results in abstaining from PPU. Acceptance and Commitment Therapy (ACT) showed positive results in treating PPU.

Conclusion: Our review proves the increase in sexual difficulties since the introduction of internet pornography. The reason and most efficient treatment modality are still not well known, underscoring the need for further research and awareness.



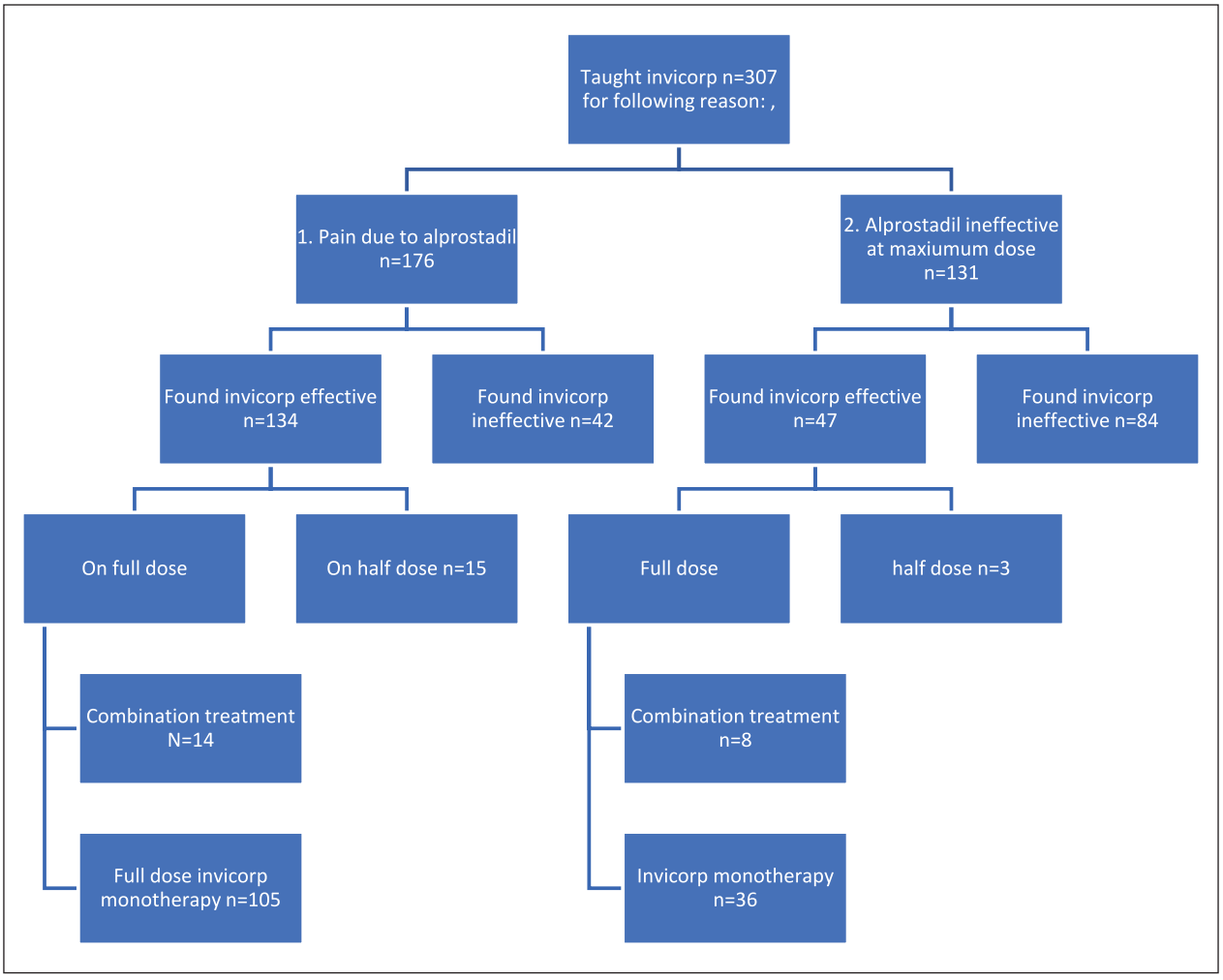
P4-3 Phentolamine and Aviptadil as second-line injection therapy for refractory erectile dysfunction

Mr Abdullah Al-Mitwalli[1], Ms F Holden[1], Mr G Chiriacò[1], Mr D Ralph[1], Mr WG Lee[1]
[1]University College London Hospital, London, United Kingdom

Introduction: In EAU guidelines, intracavernousal alprostadil injection (ICAI) are recommended for PDE5i non-responders in ED. Invicorp, (aviptadil and phentolamine-mesylate), offers reduced pain and is option after ICAI failure. Contemporary literature lacks experience.

Methods: We conducted a retrospective single-centre analysis on patients referred for Invicorp trial post ICAI failure due to pain or inadequate efficacy following titration to at least 40mcg. The initial clinic injection employed either a half-dose or full-dose of invicorp followed by a 6-week telephone follow-up. Efficacy was evaluated based on patient-reported history after 3 months.

Results: Between December 2017 and October 2023, a total of 1486 men were taught ICAI and out of those 324 (22%) were referred for invicorp. We carried out a subgroup analysis on those who were taught invicorp.



Out of the patients who were taught invicporp, 17 were lost to follow-up. Of those, 307 men (mean age 58.3). Risk factors were radical prostatectomy (44.8%) and diabetes (30.6%). Among them, 57.3% found ICAI too painful while others (43%) reported an inadequate response.

Fifty eight percent of the patients found Invicorp to be effective, enabling the resumption of sexual activity. See figure 1. Twenty-six percent of the men (n=81) experienced adverse reactions, primarily facial flushing (96.2%). No reported cases of priapism.

Conclusions: In the largest study conducted, our findings show Invicorp represents an effective and well-accepted second-line option for men who have experienced failure with most non-surgical treatments for ED. Additionally, the medication was generally well-tolerated.

P4-4 Comparing Chlorhexidine 0.05% Antiseptic Monotherapy to Conventional Combined Antibiotic Irrigation During Penile Prosthesis Implantation: A Two-Center Prospective Randomized Controlled Non-Inferiority Study (Preliminary Data)

Mr Elsayed Desouky[1], Mr Peter Tsambarlis[1], Mr Laurence A. Levine[1]

[1]Rush University Medical Center, Chicago, United States

Introduction: Infection remains a significant concern following penile prosthesis (PP) implantation surgery. Published guidelines have not provided specific recommendations regarding intra-operative irrigation. For a long time, we have been using a combination of antibiotics for irrigation. Recently, 0.05% chlorhexidine gluconate (CHG), has shown promise as an alternative irrigant, with potential advantages in terms of cost, ease of administration and reduced antibiotic resistance risk. The study aims to assess the non-inferiority of CHG antiseptic irrigation compared to conventional antibiotic irrigation.

Methods: This is a two-center prospective randomized controlled trial, involving men undergoing de-novo PP implantation. To date, 85 patients have been successfully

enrolled in the study with a predetermined non-inferiority threshold of 100 participants. Patients are randomly assigned into either the CHG irrigation or the conventional antibiotic irrigation. The primary endpoint is to evaluate the incidence of PP infections within the 90-day post-surgery period. Secondary objectives include assessment of surgical site infections, simplicity of use, and a cost-effectiveness analysis.

Results: 85 patients have been enrolled into our study so far: 43 in the CHG arm and 42 in the conventional antibiotic arm. Only one case of PP infection necessitating explanation has been reported in the CHG group. The cost for CHG is less than that for the combined antibiotic irrigation solutions.

Conclusion: Preliminary data from this non-inferiority study demonstrate that CHG irrigation is non-inferior to conventional antibiotic irrigation. Moreover, the use of CHG irrigation offers the potential advantages of ease of administration and theoretically reduces the risk of antibiotic resistance.

P4-5 The use of CircCurer™ Stapler Circumcision in Adults in the United Kingdom: first large case series

Dr Ruhul Amin[1], Dr Samuel Ghani[1], Mr Matthew Liew[2]
[1]Circumcision Pro, London, United Kingdom, [2]Liverpool University Hospitals NHS Foundation Trust, Liverpool, UK

Introduction: We report our initial experience of 80 patients using a novel stapler device - CircCurer™ Disposable Circumcision Suture Device. CircCurer™ is able to precisely excise the foreskin using a circular cutting blade and simultaneously suture the inner and outer skin with titanium staples with procedure carried out within 10 minutes.

Materials and Methods: CircCurer™ was carried out in adult males at private clinic in London, UK. Local anaesthetic employed. Frenuloplasty performed where needed. Appropriate sized CircCurer™ bell selected and placed on the glans. The foreskin was pulled over the bell and secured with sterile cable tie. The rod of the bell was loaded into CircCurer™ gun and locked into position. The gun was fired and simultaneous excision and anastomosis completed. Following release of the trigger the stapler gun, bell and excised foreskin were withdrawn. Detailed prospective data were collected and all patients were followed up at 4 weeks.

Results: Between Oct 2022 and Oct 2023, 80 patients underwent CircCurer™ Circumcision. Mean operating time 7 minutes (3 mins - 18 mins). 3 cases the CircCurer™ device successfully excised the foreskin but staples failed to deploy; the procedure was completed with absorbable sutures. 19% of patients returned to clinic for removal of staples. Very high patient satisfaction.

Conclusion: The CircCurer™ technique has the potential to transform circumcision surgery with the UK NHS backlog given its safety, short duration time to perform and high patient satisfaction and we believe the CircCurer™ to be a viable alternative to traditional circumcision.

P4-6 The impact of microfluidic sperm selection on Assisted Reproductive outcomes

Mr Ibrahim Samy[1,4], Mr Yau Thum[2], Mr Tim Bracewell-Milnes[2], Mr Suks Minhas[3], Mr Jonathan Ramsay[2], Mr Tet Yap[1]
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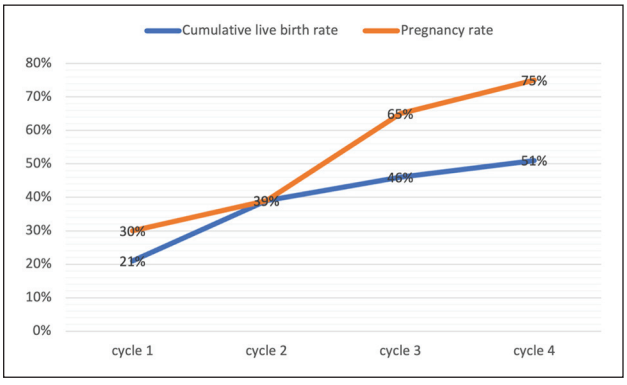
Introduction: Sperm selection techniques have been developed to improve in-vitro fertilization(IVF) outcomes. The quality of spermatozoa is considered very important, and having a high percentage of DNA-damaged spermatozoa in patients' semen might be a significant factor that decreases the success of IVF cycles. The aim of the study is to look at the outcomes of the micro-fluidic chamber sperm selection.

Methods: A retrospective study of 88 couples with previous failed IVF cycles(n = 37) or previous miscarriage/failure to conceive(n = 51) who underwent IVF cycles using ZyMot(DxNow, Maryland)between 2021-23 was performed.

Results: DNA fragmentation results pre and post ZyMot were measured (n=34) by Comet with mean score of average comet score(ACS),low comet score(LCS),and high comet score(HCS),there was a 16% reduction in DNA fragmentation noted after ZyMot use.

	pre ZyMot	post ZyMot	T Value	P value
ACS	43	36	3.9	<0.01
LCS	20	43	4.5	<0.01
HCS	29	16	3.2	<0.01



132 cycles by 88 women were evaluated, which have resulted in 53 positive pregnancies, 31 live births, and 22 miscarriages. The mean age of males (40,range 31-58) and females (38,range 26-46). A cumulative birth rate was compared to pregnancy rate after 4 cycles;
Conclusion: Microfluidic techniques like ZyMot show potential for improving pregnancy rates in couples with high sperm DNA fragmentation. Cumulative live birth rate show increase in live birth per cycle. Additional research is required within larger patient groups and in a prospective design.

P4-7 Factors associated with gonadal recovery in men stopping anabolic-androgenic steroids

Dr Anjali Pradeep[1], Mr John Campbell[2], Miss Anjali Pradeep[1], Angela D. Burns[3], Mr Paul Bassett[4], Dr Ali Abbara[1], Dr Priyardarshi Saket[2], Professor Sukhbinder Minhas[5], Professor James McVeigh[6], Dr Channa Jayasena[1], et al.
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Introduction: In the U.K., 2% of men have recently used anabolic-androgenic steroids (AAS) for athletic performance and muscle enhancement. AAS use causes death, cardiovascular disease and severe mental illness. Endogenous testosterone and gonadotrophins are suppressed during AAS use and can take months to years to recover. Men often report severe hypogonadal symptoms such as erectile dysfunction, tiredness and low mood.
To expedite endogenous testosterone secretion, some men self-administer post-cycle-therapy (PCT), which is unproven. PCT regimes commonly include human chorionic gonadotrophin (hCG), selective oestrogen receptor modulators (SERMs) and/or aromatase inhibitors (AIs).
Materials and Methods: A retrospective audit of a harm reduction clinic in U.K. between 2015-2022. Men ceasing AAS use underwent an assessment including a random, non-fasted blood test. The primary outcome was normalised reproductive hormones; a combination of reference range serum luteinising hormone, follicle-stimulating hormone and total testosterone levels.
Results: A total of 641 men were included in the analysis. Normalisation of reproductive hormones was achieved in 48.2% of men. Odds of biochemical recovery during multivariable analysis were: (1) higher with PCT (OR3.80) versus no-PCT (p=0.001), in men stopping AAS $\leqslant$3 months; (2) reduced with AAS cessation $>$6 months versus $\leqslant$3 months (OR0.34, P=0.01); (3) reduced when two (OR0.55), three (OR0.46) or four (OR0.25) AAS were used versus one (p=0.009); (4) higher with last AAS use $>$3 months (OR5.68) versus $\leqslant$3 months (P=0.001).
Conclusions: PCT use may be associated with gonadal recovery in men ceasing AAS. Interventional studies are required to further evaluate the efficacy and safety of PCT.

P4-8 A prospective audit evaluating the efficacy of Optilume balloon dilation of bulbar urethral strictures

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[1]Epsom & St Helier University Hospitals, London, United Kingdom, [2]St. George's University Hospitals NHS Foundation Trust, London, United Kingdom

Introduction: Optilume drug-coated balloon dilatation (ODCB) is novel technology utilising a Paclitaxel coated balloon to both dilate bulbar urethral strictures, and potentially delay stricture recurrence through the anti-fibrotic agent, Paclitaxel. We investigated the efficacy of ODCB in treating recurrent bulbar urethral strictures.
Methods: Prospective study with local audit committee approval. 3-5cm balloon, 30 FR calibre, dilatation 7 mins, image intensifier localisation and no post treatment urinary catheter. Inclusion criteria: Patients $>$18 years old, solitary recurrent bulbar strictures of $<$3cm.
Primary outcome measures: USS-PROM scores, uroflowmetry, patient satisfaction and freedom from re-treatment. Secondary outcome measures: complications and complication rate. Assessments at 3, 6, 12, and 24 months post treatment. Failure: return to baseline symptom score and/or uroflowmetry. Study May 2021-present.
Results: 40 patients were treated and 27 evaluable with $>$3 months follow-up. No significant adverse events were recorded. Subject age was 19-91. Mean stricture length was 2cm and mean calibre was 5 French. Mean no. of prior stricture recurrences 2. At the 3-month follow-up interval success was 93% (25/27), 74% at 6 months (17/23) and 58% at 12 months (11/19). Limited data at 24 months suggests a 50% success rate (3/6).
Conclusion: Outcome data are too early to place Optilume in the management pathway of recurrent bulbar strictures. Treatment is well tolerated, and very low side defect profile. Longer term data is required from a larger cohort. Most patients remained satisfied or very satisfied with their treatment outcome, possibly as interval to retreatment compared with their prior treatments appears subjectively longer.

P4-9 Comparison of oncological outcomes and survival between video endoscopic and open inguinal lymph node dissection for penile cancer over a 15-year period

Miss Ranya Vardini Kumar[1], Professor Krishna Sethia[2], Mr Vivekanandan Kumar[2]

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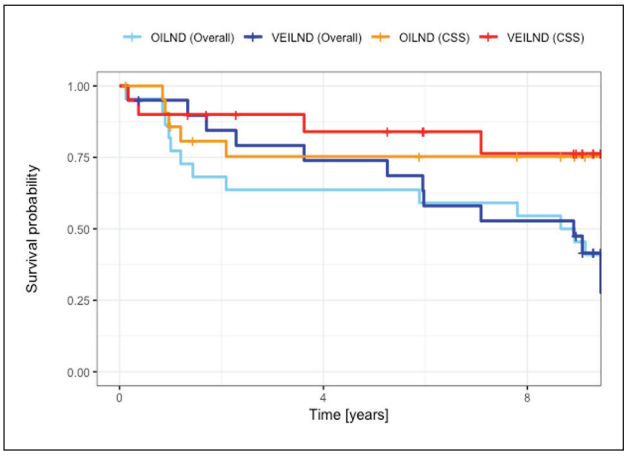
Introduction: Lymph node metastasis status is the strongest predictive factor for penile cancer survival. Radical inguinal lymph node dissection (ILND) is the standard treatment option. Though video-endoscopic ILND (VEILND) had shown reduced morbidity in the short term over open ILND (OILND), its oncological efficacy long-term is unproven. We present our long-term oncological follow up of our previously published ILND cohort.
Methods: A prospectively collected institutional database was used to determine the outcome in 42 consecutive patients treated for penile cancer in a tertiary referral centre between 2008-2015. Overall and cancer-specific survival(CSS) was calculated using Kaplan-Meier curves and compared via log-rank test.
Results: 42 patients underwent 68 ILND (35 OILND vs 33 VEILND). 13/42 patients were alive at a mean follow-up of 11.3 years. Overall survival for OILND and VEILND were 32% and 30% (p=0.67) and cancer specific survival were 73% and 75% (p=0.74) respectively. Inguinal/pelvic nodal recurrence occurred in 5/22 OILND and 4/20 VEILND (p=0.83) patients. CSS for OILND N0, N1, N2 and N3 were 77.8%, 85.7%, 50%, 50% compared to VEILND which were 100%, 80%, 75%, 40% respectively. 7/22 and 4/20 patients died at 2 years follow up in OILND and VEILND groups.
Conclusion: To our knowledge, we present the first UK report of long-term follow-up comparing survival in VEILND and OILND. VEILND has comparable outcomes of recurrence, overall survival and cancer-specific survival in penile cancer at a minimum of eight years. There is a trend towards a better short-term overall survival in the VEILND group at five years.



P4-10 Optimising surveillance imaging in high risk nodal (N+) penile cancer: proposal of an updated surveillance protocol

Mr Thomas Kynaston[1], Mr Benjamin Ayres[1], Professor Nicholas Watkin[1], Miss Sylvia Yan[1], Mr Michael Ager[2], Dr Angela Pathmanathan[3]

[1]St Georges University Hospitals NHS Trust, London, United Kingdom, [2]Charing Cross Hospital, London, United Kingdom, [3]Royal Marsden Hospital, London, United Kingdom

Introduction: Current EAU guidelines recommend a minimum of 15 surveillance CT thorax abdomen pelvis (TAP) scans over 5 years for patients with N+ penile squamous cell carcinoma (pSCC). This study aimed to examine the recurrence rate and timing of recurrence in pN+ penile cancer based on nodal status which may inform an improved schedule of CT surveillance.
Methods: A prospective database of patients treated at our tertiary referral centre from 2001-2021 was reviewed. Commencement of surveillance was defined as the date of lymph node dissection.
Results: 294 patients were included. 26% had pN1 disease, 10% pN2 and 64% pN3. 133 (45%) developed disease recurrence, of which 96% did so within 2 years of nodal clearance surgery (P=0.003). 5-year recurrence free survival (RFS) was 75%, 62% and 48% for pN1, pN2 and pN3 disease, respectively (see figure 1). Recurrence curves show clear plateau at 12 months for pN1 and pN2 but not pN3.
Conclusions: There is a statistically significant difference in the probability of recurrence, and 5-year RFS between pN1, pN2 and pN3 patients. We propose surveillance for patients could be stratified according to pN stage and limited to 3 years. Patients with pN1 and pN2 disease could have the frequency of scans reduced from 3-monthly to 6-monthly after 1 year. Those with pN3 disease should continue to have 3-monthly scans for 2 years, then 6-monthly scans for a further year. This stratified approach would reduce radiation exposure and healthcare costs, whilst continuing surveillance of pN+ patients in a safe manner.

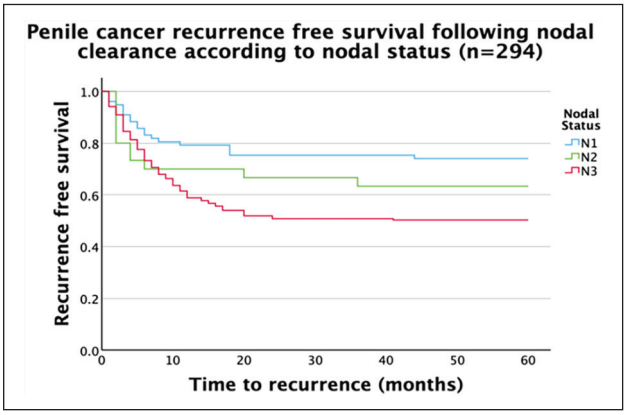


Figure 1. Penile cancer five-year recurrence free survival following nodal clearance. pN1 (blue), pN2 (green), pN3 (red), (P = 0.003).

ePoster Session 5

Uro-technology /Artificial Intelligence & Urology Apps, Tuesday 25 June, 0800-0900, Hall 11A

P5-1 Novel Patient Information Video – a pilot study assessing feasibility and appetite for shared decision-making to enhance the surgical consent process

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Introduction: We aim to evaluate and better understand patients' perceptions and acceptability of a unique patient information video tool within an integrated QR-code digital platform (figure 1) to aid and enhance their surgical journey from clinic to theatre.
Patients and Methods: We performed a pilot proof-of-concept assessment of 13 consecutive patients undergoing laparoscopic radical nephrectomy in a single institution from July 2023 to September 2023. A unique patient information video, pertaining to BAUS guidelines was distributed to patients undergoing the procedure pre-operatively. A standardised feedback form was created to understand patient perceptions.

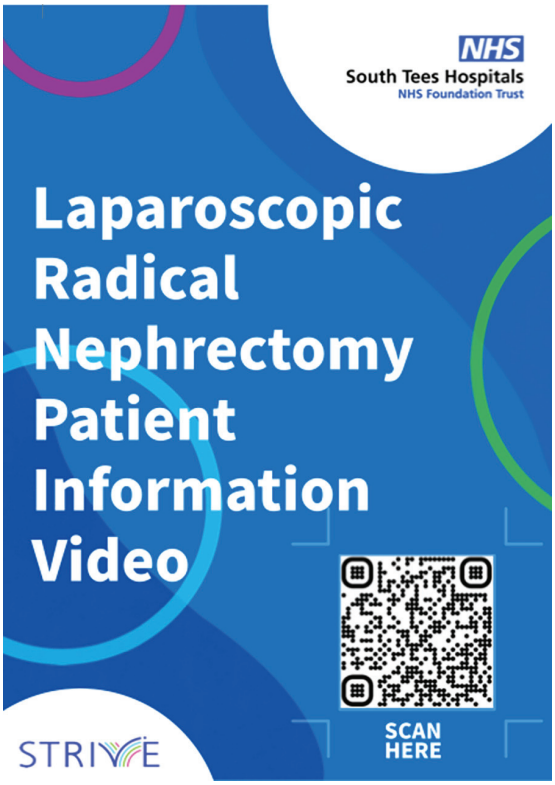


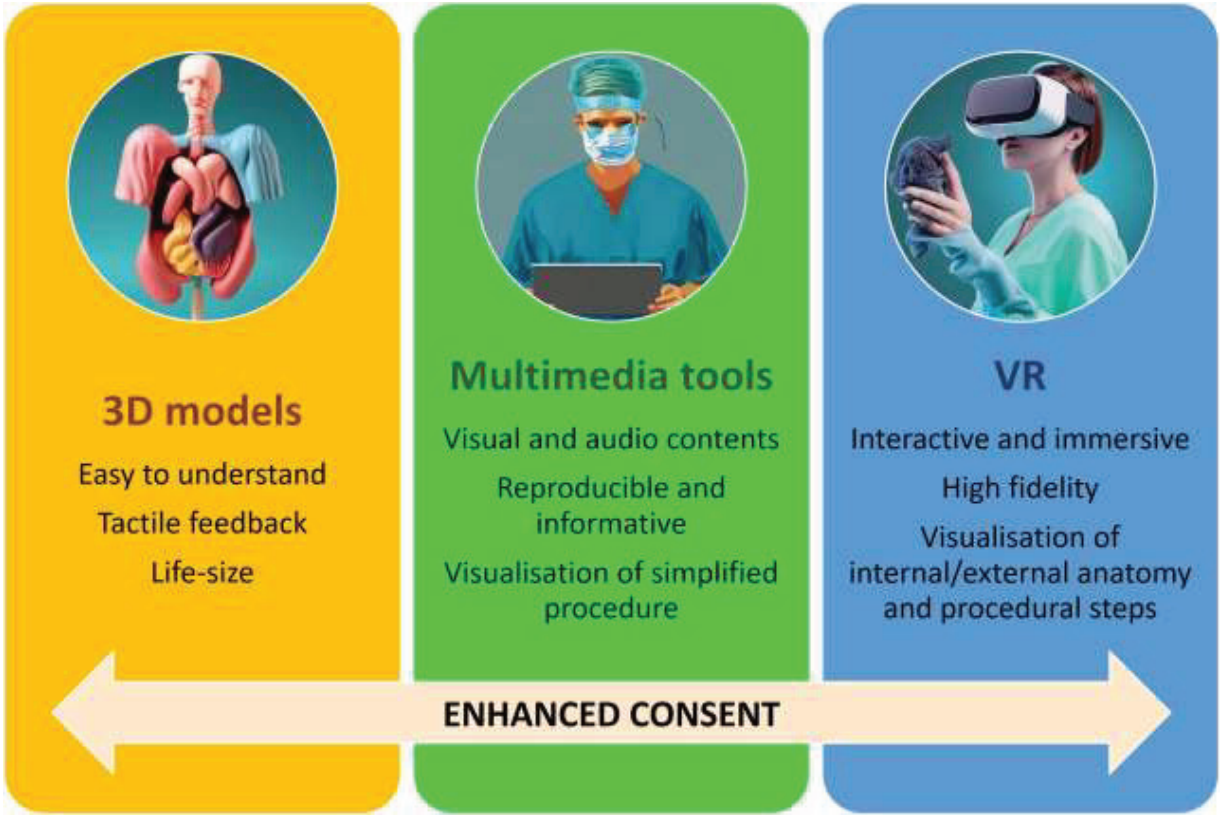
Figure 1. QR-code enabled Patient Information Video Leaflet.

Results: Overall, 9 (70%) male and 4 (30%) female patients completed the feedback questionnaire using a 5-point standardised Likert scale. The mean participant age was 62 (median 61.5) years. 85% of patients found the video helpful. No one found the information difficult or confusing to understand. 90% of patients found the video communication made them feel "more confident to manage the recovery process". 100% would recommend a similar video tool to others.
Conclusions: There was an overwhelmingly positive response to this novel video platform in enhancing the surgical journey. A further study is under way to optimise patient engagement in the preoperative period, improving the quality of the consent process.

P5-2 Revolutionizing patient information and enhanced consent in Urology - The impact of simulation and multimedia tools

Dr Carlotta Nedbal[1,2], Dr Patrick Juliebø-Jones[3], Dr Eamonn Rogers[4], Dr Clara Cerrato[1], Dr James N'Dow[5], Dr Maria Ribal[6], Dr Jens Rassweiler[7], Dr Evangelos Liatsikos[8], Dr Hein Van Poppel[9], Prof Bhaskar Kumar Somani[1]
[1]Southampton University Hospital, Southampton, United Kingdom, [2]Azienda Ospedaliero-Universitaria delle Marche, Polytechnic University of Le Marche, Ancona, Italy, [3]Haukeland University Hospital, Bergen, Norway, [4]University College Hospital, Galway, Ireland, [5]University of Aberdeen, Aberdeen, UK, [6]Hospital Clinic, University of Barcelona, Barcelona, Spain, [7]Danube Private University (DPU), Krems-Stein, Austria, [8]University of Patras, Greece, [9]KU Leuven, Leuven, Belgium

Introduction: Discussions surrounding urological diagnoses and planned procedures can be challenging, and patients might experience difficulty in understanding the medical language, even when assisted by radiological imaging or drawings. With the introduction of virtual reality and simulation, informed consent could be enhanced with audio visual content and interactive platforms. We aimed to assess the role of enhanced consent in the field of urology.
Materials and Methods: A systematic review of the literature was performed, in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) guidelines, using informed consent, simulation and virtual reality in urology as the search terms. All original articles were screened.
Results: Thirteen original studies were included in the review. They analysed the application of different modalities for enhanced consent: 3D printed or digital models, audio visual multimedia contents, virtual simulation of procedures and interactive navigable apps. Published studies agreed upon a significantly improved effect on patient understanding of the diagnosis, including basic anatomical details, and surgery-related issues such as the aim, steps and the risks connected to the planned intervention. Patient satisfaction was unanimously reported as improved as a result of enhanced consent.



Strength of the different types of enhanced-consent devices analysed in the review: 3D models, audiovisual multimedia tools, virtual reality (VR).

Conclusion: Simulation and multimedia tools are extremely valuable for improving patient understanding and satisfaction towards urological procedures. A widespread application of enhanced consent would represent a milestone for the patient-urologist communication, as it enhances knowledge and patient satisfaction,creating more realistic patient expectations and better informed consent.

P5-3 ARTIFICIAL INTELLIGNENCE VERSUS HUMAN TOUCH: CAN ARTIFICIAL INTELLIGENCE ACCURATELY GENERATE A LITTERATURE REVIEW ON LASER TECHNOLOGIES?

Dr Frederic Panthier[1], Dr Alberto Melchionna[1], Dr Hugh Crawford-Smith[1], Mrs Daniela Velinova[1], Ms Ikran Mohamed[1], Ms Siobhan Price[1], Dr Simon Choong[1], Dr Vimoshan Arumuham[1], Dr Sian Allen[1], Dr Daron Smith[1]

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Objectives: Artificial Intelligence(AI) has various emerging applications in medicine. We aimed to compare open-source AI(openAI) large language models(LLMs) to a human's ability to write a systematic review(SR) on the new pulsed Thulium:YAG(p-Tm:YAG) laser.

Methods: Four AI manuscripts were generated using the query:"write a systematic review on pulsed-Thulium: YAG laser for lithotripsy" submitted to four OpenAI-LLM(ChatGPT-4;Vercel;Claude;Mistral-7b). OpenAI-SRs' form was revised to avoid recognition bias.The Human systematic review SR was written by a certified endourologist with expertise in lasers("ground truth") against which the AI versions were compared. Nine participants with diverse experience(three specialist nurses, three urology trainees and three consultant endourologists) objectively assessed SRs' accuracy using a 10-point checklist. An additional subjective assessment rated quality(0-10), clarity(0-10) and overall rank(1-5). Two-way-ANOVA with multiple comparisons and subgroup analysis including types of responders and checkpoint fields were conducted.

Results: Compared to the Human-SR, OpenAI-SRs presented more imperfections in both form (for example, the absence of methods or references's section) and content. The Human-SR was objectively and subjectively more accurate than Open-AI-SRs(87%(81-91%) and 96%,$p<0,001$

Table 1. Artificial Intelligence Open Large Language Models and Human systematic reviews results for objective and subjective assessment.

CHECKPOINT	ITEM		ChatGPT4			VERCEL			CLAUDE			MISTRAL			HUMAN		
			YES	UNCLEAR	NO	YES	UNCLEAR	NO	YES	UNCLEAR	NO	YES	UNCLEAR	NO	YES	UNCLEAR	NO
TECHNOLOGY	1	Pulsed Thulium:YAG is a pulsed laser	60%	20%	20%	0%	20%	80%	40%	30%	30%	60%	0%	40%	100%	0%	0%
	2	Pulsed Thulium:YAG is a cavity laser with a wavelength of 2013nm	0%	0%	100%	0%	0%	100%	0%	20%	80%	70%	0%	30%	90%	10%	0%
	3	Pulsed Thulium:YAG Maximum average power is 100W	0%	20%	80%	0%	0%	100%	0%	20%	80%	10%	0%	90%	100%	0%	0%
	4	Thulium:YAG pulses characteristics (at least one between : energy, frequency, peak power)	70%	20%	10%	20%	10%	70%	70%	20%	10%	40%	20%	40%	100%	0%	0%
	5	Lowest laser fiber diameter with pulsed Thulium:YAG is 200µm	0%	20%	80%	0%	0%	100%	0%	20%	80%	10%	0%	90%	100%	0%	0%
IN VITRO RESULTS	6	Efficient on artificial stones compared to Holmium:YAG and Thulium Fiber Laser	20%	20%	60%	0%	10%	90%	10%	30%	70%	10%	10%	80%	100%	0%	0%
	7	Efficient on human stones compared to Holmium:YAG and Thulium Fiber Laser	50%	20%	30%	0%	10%	90%	20%	30%	40%	10%	20%	70%	100%	0%	0%
	8	Low retropulsion compared to Holmium:YAG	40%	10%	40%	10%	0%	90%	10%	20%	70%	60%	10%	30%	80%	20%	0%
IN VIVO RESULTS	9	A single clinical study on flexible ureteroscopy showed pulsed Thulium:YAG's safety and efficiency	50%	20%	30%	10%	10%	80%	40%	30%	30%	10%	10%	80%	100%	0%	0%
	10	No available percutaneous studies	0%	20%	70%	0%	20%	80%	0%	0%	100%	10%	0%	90%	90%	0%	10%
OVERALL QUALITY (0-10)			5,5(5-7)			3,5(1,25-5)			5,5(3,25-7)			5,5(3,25-6,75)			**8,5(8-9)**		
OVERALL CLARITY (0-10)			7(6,25-8)			3(2,75-5)			6,5(5-7)			6(4,25-7)			**8(7,25-9)**		
RANK OF MANUSCRIPT (1-5)			4(3-4)			1(1-2)			3(2-3)			2(2-3)			**5(5-5)**		
SUBJECTIVE SCORE			62%(60-74%)			34%(17-44%)			56%(45-68%)			52%(44-65%)			**87%(81-91%)**		
OBJECTIVE SCORE			29%			4%			19%			29%			**96%**		

respectively) (Table1). ChatGPT4-SR provided greater subjective and objective accuracy scores than the other OpenAI-SRs(62%(60-74%) and 29% respectively). SR type significantly influenced objective accuracies ($p<0,0001$), unlike the level of expertise (p=0,42). Quality and clarity were significantly impacted by SR type but not expertise level ($p<0,001$ and $>0,05$,respectively).

Conclusions: Although OpenAI, especially ChatGPT4 has great potential to improve our practice, this still requires close human supervision. As it stands, AI may help initiate scientific research but still requires "the human touch" to improve its accuracy, both objectively and subjectively for human readership.

P5-4 Evaluating the performance of an AI Large Language Model (ChatGPT-4) in the classification of CT kidney ureter and bladder (KUB) radiology reports

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[1]Heartland Hospital, University Hospital Birmingham NHS Trust, Birmingham, United Kingdom

Introduction: The advent of Large Language Models (LLMs) such as ChatGPT-4 has opened avenues for automating the interpretation of radiology reports. This study evaluates ChatGPT-4's effectiveness in classifying CT KUB reports, a critical step in the renal colic pathway.

Methods: We retrospectively evaluated 1,251 CT KUB reports for the presence of urolithiasis using ChatGPT-4, comparing its performance with that of two experienced clinicians. The AI model was instructed to assign binary values based on the presence of urolithiasis. Discrepancies between the LLM and the clinicians were assessed again to confirm the source of error.

Results: ChatGPT-4's analysis yielded an accuracy of 94.4%, with a sensitivity of 97.6% and precision of 89.3%. It achieved an F1 score of 0.932. In 13 instances (1.0%), ChatGPT-4 identified urolithiasis that clinicians initially overlooked. The model processed the entire dataset in just 3 minutes—markedly less than the 4 hours taken by clinicians. However, ChatGPT-4 deviated from the expected binary output in 1.8% of cases by providing unsolicited detailed explanations. It also tended to misclassify patients who had passed stones as positive.

Conclusion: ChatGPT-4 demonstrates promising accuracy in CT KUB report analysis, significantly reducing the time burden on clinicians. Precise instruction formulation and model tuning are imperative to mitigate errors and leverage the potential of LLMs in audit and pathway analysis. Further refinement of such LLMs, as well as improved integration into current clinical software has the potential to revolutionise clinical workflow streams.

P5-5 A Machine Learning (ML) Predictive Model for Ureteroscopy lasertripsy (URSL) Outcomes in a Paediatric Population – Results from a large Endourology Tertiary Centre

Dr Carlotta Nedbal[1], V.A Sairam[2], Shilpa Gite[2], Nithesh Naik[3], Prof Bhasar Kumar Somani[1]

[1]University Hospitals Southampton, NHS Trust, Southampton, United Kingdom, [2]Symbiosis institute of technology, Pune, India, [3]Manipal Academy of Higher Education, Manipala, India

Introduction: We aimed to develop machine learning (ML) algorithms for the automated prediction of post operative ureteroscopy outcomes for paediatric kidney stones based on pre-operative characteristics.

Material and Methods: 15 ML classification algorithms were used to investigate correlations between preoperative characteristics and postoperative outcomes (primary stone free status (SFS) and complications). For the task of complication and stone status, ensemble model was made out of bagging classifier, extra trees classifier and LDA. Also, a multi-task neural network was constructed for the simultaneous prediction of all post-operative characteristics. Finally, Explainable AI techniques were used to explain the prediction made by the best models.

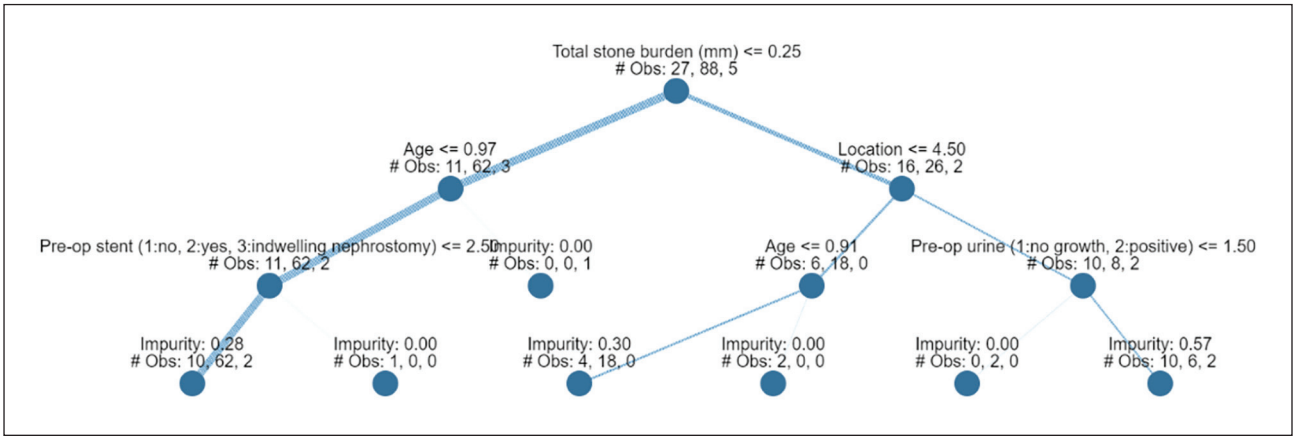

Figure 1. Explainable tree for prediction of stone free status.

Results: The ensemble model produced the highest accuracy (90%) in predicting SFS, finding correlation with total stone burden (-0.205), presence of multiple stones (-0.127) and preoperative stenting (-0.102). Complications, were predicted by SMOTE oversampled dataset (93.3% accuracy) with relation to preoperative positive urine culture (-0.060) and SFS (0.003). Training the ML for the multi task model, accuracies of 83.3% and 80% were respectively reached.
Conclusion: ML has a great potential of assisting healthcare research, with possibilities to investigate dataset at a higher level. With the aid of this intelligent tool, urologists can implement their practice and develop new strategies.

P5-6 A new innovative EPR (electronic patient records) integrated Ureteric Stent Register

Mr Damiete Harry[1], Miss Nisa Sekhon[1], Ms Eleanor Buck[1], Mr Ifthekhar Khan[1], Ms Surbjit Kudhail[1], Ms Priya Parasuraman[1], Mr Junaid Masood[1]
[1]Barking, Havering and Redbridge University Hospitals NHS Trust, Romford, United Kingdom

Objectives: When a double J stent (DJS) is forgotten, it can cause morbidity, often requiring more complex surgery and mortality is reported. We are not aware of a reliable, easy to use and auditable DJS register.
Methods: Using in-house IT resources to transform our procedure requesting software, a urology specific electronic surgery request form was created. Stents that have been inserted are now logged in when the surgeon requests the definitive procedure. It automatically logs stents according to their clinical codes. Weekly emails alerts are sent of stents nearing expiry. A retrospective audit from May 2022 to May 2023 was performed to ascertain the accuracy of the register.
Results: 598 stent journeys were captured, there were no lost stents on crosschecking theatre and radiology logs. It is cost neutral; easy to use and is fully auditable. All antegrade stents inserted by the interventional radiology department were captured.
The register classified 75 stents as forgotten, they were in-situ for more than 6 months. These patients were known to the service and were not lost. 8 coding errors by non-clinical staff were found on audit, these patients were erroneously marked as having had stents removed when they still had a stent in-situ. This was corrected with education.
Discussion and Conclusion
This new innovative, fully hospital network integrated electronic stent register has transformed the logging of DJS and eliminated "lost" stents in our hospital trust. We believe this to be reproduceable, and we would like to share it with the urological community.

P5-7 Quantitative Evaluation of Vascular Pattern of Intra-Testicular Lesions on High Frequency Colour Doppler Ultrasound Examination

Dr Michael Conroy[1], Dr Dean Huang[2]
[1]Kent & Canterbury Hospital, Canterbury, United Kingdom, [2]King's College Hospital, London, United Kingdom

Introduction: The aim of the study is to quantitatively evaluate the correlation of the vascular pattern with histology in testicular tumours in order to differentiate patterns of malignant vascularity from normal testicular vascularity on colour Doppler ultrasound.
Materials & Methods: Colour Doppler ultrasound studies of 116 testicular ultrasound examinations were evaluated. Dedicated software in Matlab was developed to measure the directional coherence of the vasculature present in the scans. For each patient a measure of the alignment of the vessels was calculated using circular statistics, and then compared between malignant and non-malignant cases. Radical orchiectomies were
performed for all malignant lesions and histology correlated with Colour Doppler ultrasound analysis.
Results: Of the 116 ultrasound examinations studied, there were 52 malignant and 64 non malignant testes. There was a statistically significant difference (p value = 0.028) between the vessel alignment for the malignant group colour Doppler study (0.253) when compared to that of the non malignant group (0.285).
Conclusions: Testicular malignancies demonstrate a disordered pattern of vascularity, with loss of normal linear distribution. Use of computer based analysis of colour Doppler examinations provides further assessment of suspected testicular malignancies. Quantitative assessment of testicular vascular pattern could be used to support diagnostic certainty for testicular malignancy.

P5-8 Enhancing Non-Muscle Invasive Bladder Tumour Identification and Resection: A Machine-Learning Driven Map and Co-Pilot

Mr Kirandeep Saini[1,2], Mr Felix Holm[2,5], Ms. Hanna Hoffmann[2,4], Mr Vivek Singh[2,6], Dr Rafael Moreta Martínez[2], Dr Monica Ortenzi[2,3]
[1]Churchill Hospital, Oxford, United Kingdom, [2]SDS, Institute of Image Guided Surgery, University of Strasbourg, France, [3]Universita Politecnica delle Marche, Ancona, Italy, [4]NCT Dresden, Dresden, Germany, [5]TUM School of Computation, Information and Technology, Technical University of Munich, Munich, Germany, [6]Boston University School of Medicine, Boston, USA

Introduction: In managing non-muscle invasive bladder cancer (NMIBC), current cystoscopic lesion identification and resection methods encounter a significant challenge with a 20-25% rate of missed lesions, contributing to a

high recurrence rates. Non-computational techniques, such as blue-light cystoscopy, have been deployed to mitigate the rates of overlooked or incompletely excised lesions. Our study introduces a pioneering approach, leveraging machine learning & computer vision techniques to create a computational system for bladder navigation and precise lesion identification.

Methods: We produced a mock-up of a lesion detection and dynamic 3D bladder mapping system. To conduct lesion detection, we produced a trial convolutional neural network architecture on NVIDIA(TM) GPU (RTX30 series). For camera pose estimation and mapping we used a combination of a SIFT (scale-invariant feature transform) algorithm, visual odometry and Perspective-n-Point methods. This permits calibration with a dynamic bladder volume and varying optical properties.

Results: Here we present a mock-up of this technology, its architecture and training, which could map a bladder and, with further data, could improve lesion detection. This would reduce inter-operator data loss on lesion position estimation between flexible and rigid cystoscopy, and often between different operators. Intra-operatively it could improve identification and full clearance of multifocal lesions. The system could identify tumours, encode their position within a bladder map and display this information to clinicians intra-operatively.

Conclusions: By integrating machine learning and computer vision techniques, our approach stands to lower the incidence of missed lesions, reduce dependence on operator skill in NMIBC cystoscopic procedures, potentially improving patient outcomes.

P5-9 Using wearable device monitoring and artificial intelligence to develop predictive moels for predicting survival after radical cystectomy for bladder cancer - a secondary outcome analysis of the iROC trial

Mr Pramit Khetrapal[1], Mr Yansong Liu[2], Prof Nikhil Vasdev[3], Prof Imran Ahmed[4], Mr Philip Charlesworth[5], Prof Muhammad Shamim Khan[6], Mr Vishwanath Hanchanale[7], Mr Sanjeev Kotwal[8], Mr Ed Rowe[9], Mr John McGrath[10], et al.

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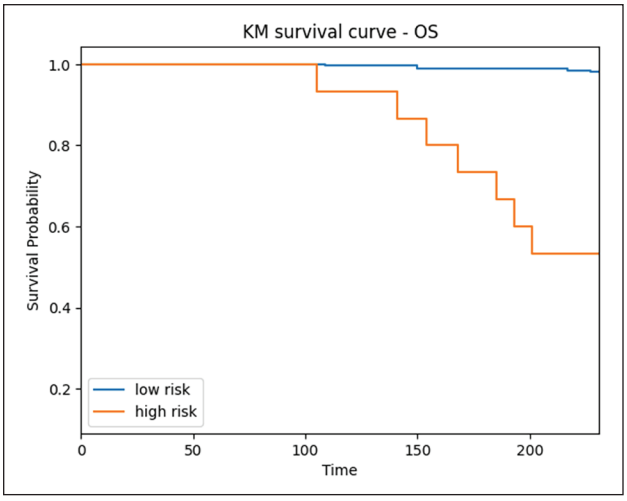


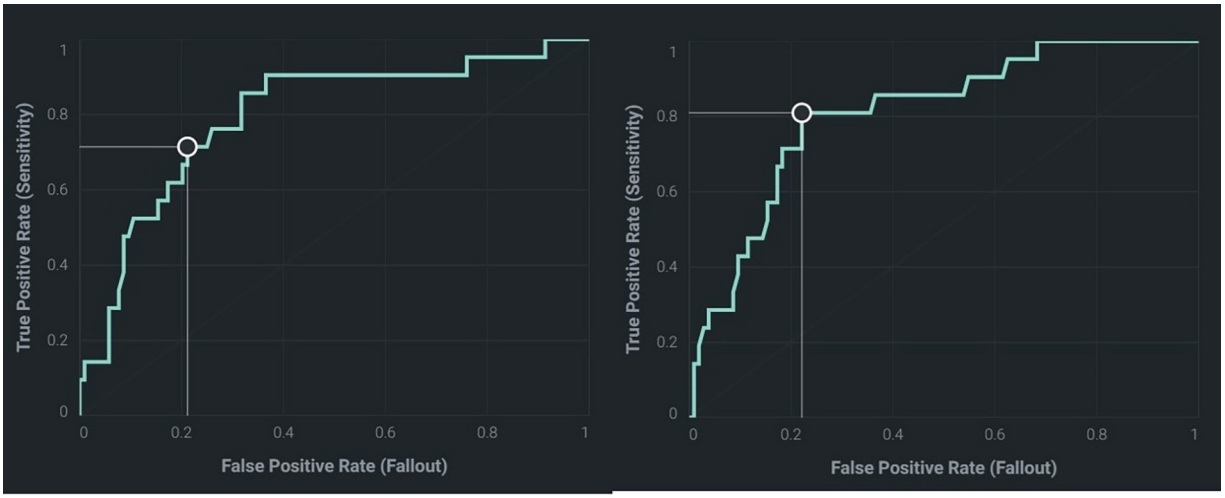
Figure 1. Kaplan Meier analysis with patients divided into low and high risk groups based on their clinical pathological features, activity data and stamina data.

Introduction: Associations between survival rates after undergoing radical cystectomy (RC) for bladder cancer and activity levels have not been reported.

Materials and Methods: The iROC randomized trial (NCT03049410) compared recovery following intracorporeal robot-assisted RC (iRARC) vs open RC (ORC) for bladder cancer. Physical activity levels were collected as steps per over a 7-day period using a wrist-worn device at baseline and 12 weeks post-operatively. Stamina was measured using the 30-second chair-to-stand assessment at similar timepoints. Clinicopathological data was collected, and cross-sectional imaging was used to determine recurrence-free survival (RFS), and overall survival (OS).

Results: Among 338 patients in the iROC trial, 319 patients received RC. Overall survival following RC was 87% (319-41/319) patients and RFS was 82% (319-57/319) over a median follow-up of 33 months. Wearable device data was available for 165 patients for analysis. Using clinicopathological features including age, gender, BMI, pathological T-stage and surgical margin, we demonstrated an AUC of 74% to predict RFS which improved slightly to 76% on adding activity and stamina data. For prediction of OS, using clinicopathological features demonstrated an AUC of 71%, which improved to 81% with the addition of activity and stamina data. Kaplan Meier analysis with patients divided into low and high risk groups by the final model showed an increased PFS (99% vs 59%) and OS (98% vs 53%) in 33 months after surgery.

Conclusion: Wearable device and stamina data may offer additional prognostic information which could supplement traditional clinicopathological features.



P5-10 Using an Artificial Intelligence-based Machine Learning Models to predict postoperative complications after robot-assisted partial nephrectomy

Dr Gopal Sharma[1], Dr Gurpremjit Singh[1], Dr Sudheer Rawal[2], Dr Arvind Ganpule[3], Dr T A Kishore[4], Dr Deepak Dubey[5], Dr Ravimohan Mavuduru[6], Dr Ginil Kumar Pooleri[7], Dr Anant Kumar[8], Dr Gagan Gautam[1], et al.

[1]Medanta Hospital, Gurgaon, India, [2]RGCI, Delhi, India, [3]MPUH, Nadiad, India, [4]Aster Medicity, Kochi, India, [5]Manipal hospital, Bengaluru, India, [6]PGIMER, Chandigarh, India, [7]Amrita Institute of Medical Sciences, Kochi, India, [8]Max Hospital, Saket, India

Introduction: The performance of robot-assisted partial nephrectomy (RAPN) presents significant difficulties, especially when dealing with complicated tumour anatomy. The ability to accurately identify patients at high risk for experiencing complications enables healthcare providers to implement preoperative interventions to address modifiable factors and impact the selection of appropriate management strategies. Our study aimed to assess Artificial intelligence machine learning models' utility in predicting postoperative complications.

Material and Methods: We queried the retrospective multicentric Indian Study Group Partial Nephrectomy database (ISGPN) of patients who underwent RAPN for renal masses. Extreme gradient-boosted tree classifier and light gradient boosting machine learning model were used to predict postoperative complications. Stratified sampling ensured similar target distribution across partitions while training models. Five-fold cross-validation was used to evaluate the model. Recall, precision, F1 score, and AUC were calculated and used to compare the models.

Results: This study had 782 patients with a median age (IQR) of 53 (44-62) years. Post-operative complications were noted in 127 patients (16.2%). The Extreme gradient boosted tree classifier machine learning model had a recall (Sensitivity) of 0.71, Precision (PPV) of 0.40 and F1 score of 0.51. The model AUC and accuracy were 0.79 and 0.77, respectively. The light gradient boosting machine learning model had a recall (Sensitivity) of 0.81, Precision (PPV) of 0.43 and F1 score of 0.55. The model AUC and accuracy were 0.81 and 0.78, respectively.

Conclusion: We noted overall performance of the light gradient-boosting model is better than the extreme gradient-boosted tree classifier, with an AUC of 0.81.

ePoster Session 6 Management/ Governance/Education/Quality Improvement 1, Tuesday 25 June, 0800-0900, Hall 11B

P6-1 Medical Students' Outpatient Skills Experiences and Training in Urology Clinics: A quality improvement project

Usaamah Ramzan[2], Dr Nadeem AlShunaigat[2], Dr Ravi Banthia[1], Mr Steve Leung[1,2]

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Introduction: Outpatient clinics are an essential aspect of urological practice. We sought to assess the outpatient clinic experiences of our medical students and test whether a simple intervention for students attending urology clinics will improve learning and their overall experience.

Methods: 40 graduating medical students who attended outpatient urology clinics were asked to complete a short questionnaire to assess their experience. We then created several sub-specialty specific crib sheets explaining common conditions that they may see in the clinic and provided this to students attending clinic. We then repeated the survey and 29 medical students completed questionnaire.
Results: The initial survey noted that only 40% of students were highly satisfied with their urology clinic experience. This increased to 87.2% following the introduction of the clinic crib sheet. Only 37% initially found the clinics useful versus 96.6% after the intervention.
Conclusions: In this study, we show that small interventions such as quick-reference guide can significantly improve the experience of medical students attending urological clinics. Students retained more and rated the urology clinics as far more useful after this targeted intervention. Improved training may draw more graduates to choose in-demand specialties like urology. As this study shows, medical curriculum enhancements need not be complicated or costly to improve the overall experience gain in the outpatient clinic environment. We aim to provide a more detailed breakdown of the other domains in the questionnaire.

P6-2 The introduction of a Urology Foundation Doctor Mentorship Scheme at a District General Hospital

Miss Vishali Sharma[1], Mr Joshua Rabinowitz[1], Mr Ray Hsu[1], Miss Shabnam Undre[1], Mr Andrew Brodie[1]
[1]Lister Hospital, East and North Herts NHS Trust, Stevenage, United Kingdom

Background: Undergraduate exposure to Urology is lacking, with 42% of current Foundation Year doctors at a District General Hospital (DGH) reporting that they received no formal undergraduate urological training. The 2018 BAUS and SAC workforce 12-year projection highlights a worrying trend towards a depleted Urology Consultant workforce and increasing patient demand. By introducing a formal Mentorship Scheme for Foundation Year doctors in Urology, including the introduction of a 'Urology Passport' in line with ePortfolio requirements for ARCP, this project aimed to improve trainee satisfaction and promote interest in Urology as a potential future career.
Materials and Methods: A Mentorship Scheme was introduced to each incoming cohort of Urology Foundation doctors at a DGH in 2023. The scheme consisted of a Registrar mentor for each Foundation grade doctor, and supervised completion of a 'Urology Passport' comprising a list of specialty-specific educational opportunities. The impact of the scheme was assessed via an end of placement questionnaire, the outcomes for which were based upon the five domains of the GMC National Training Survey on 'Promoting Excellence', including learning culture, educational leadership, supporting learners and educators, and developing and implementing curricula.
Results: The mean satisfaction scores from the mentorship cohort revealed an improvement in all five domains in comparison with previous trainees. The questionnaire also demonstrated increased interest in Urology as a future career after completion of the rotation.
Conclusion: Focusing on improving the Foundation doctor experience during their Urology rotation improves trainee satisfaction and may have a positive impact in encouraging speciality-training application.

P6-3 Emergency Urology Crash Course: Teaching Frontline Non-Urologists Pays Back

Mr Elsayed Desouky[1], Mr Mohamed Ibrahim[2], Mr mohamed Koura[2], Mr Mohamed Dallash[2], Mr Jas Kalsi[2]
[1]RUSH University Medical Center, Chicago, USA, [2]Wexham Park Hospital, Slough, UK

Introduction: Urology is a specialty that notoriously receives little attention in medical school, yet it makes up to a sizeable portion of the workload in emergency departments. Based on a survey conducted among ER team members, recent audits and incident reports, Our aim is to improve the knowledge and practical skills of frontline non-urologists bridging the gap between different specialties.
Methods: One-day emergency urology crash course has been organized by urology team in our trust. The course is provided by 4 urology SpR/residents under supervision of a urology consultant. Our course includes alternating sessions between lectures and practical skills (hands on training). Pre- and post-course questionnaires as well as a feed-back forms have been used to analyze
overall outcome of the course. We ran the course 4 times so far.
Results: Candidates included 60% A&E, 20% General surgery, 10% medical, 10% others. 70% were
residents,25% SHO (PGY1,2) and 5% Nursing staff. 80% of candidates were from our trust and 20% from other trusts who got interested to attend. Candidate to faculty ratio was 5:1. Pre- and post-course questionnaires result showed an increase in knowledge by 4 points and an increase in practical skills of 3 points. The Royal College of Surgeons of England (RCS Eng) awarded our course 4 CPD points.
Conclusions: One-day emergency urology course can achieve a lot on practical grounds as candidates feel more confident dealing with emergency urology. This reflects on the overall improved health care service provided to urology patients presenting in the acute settings.

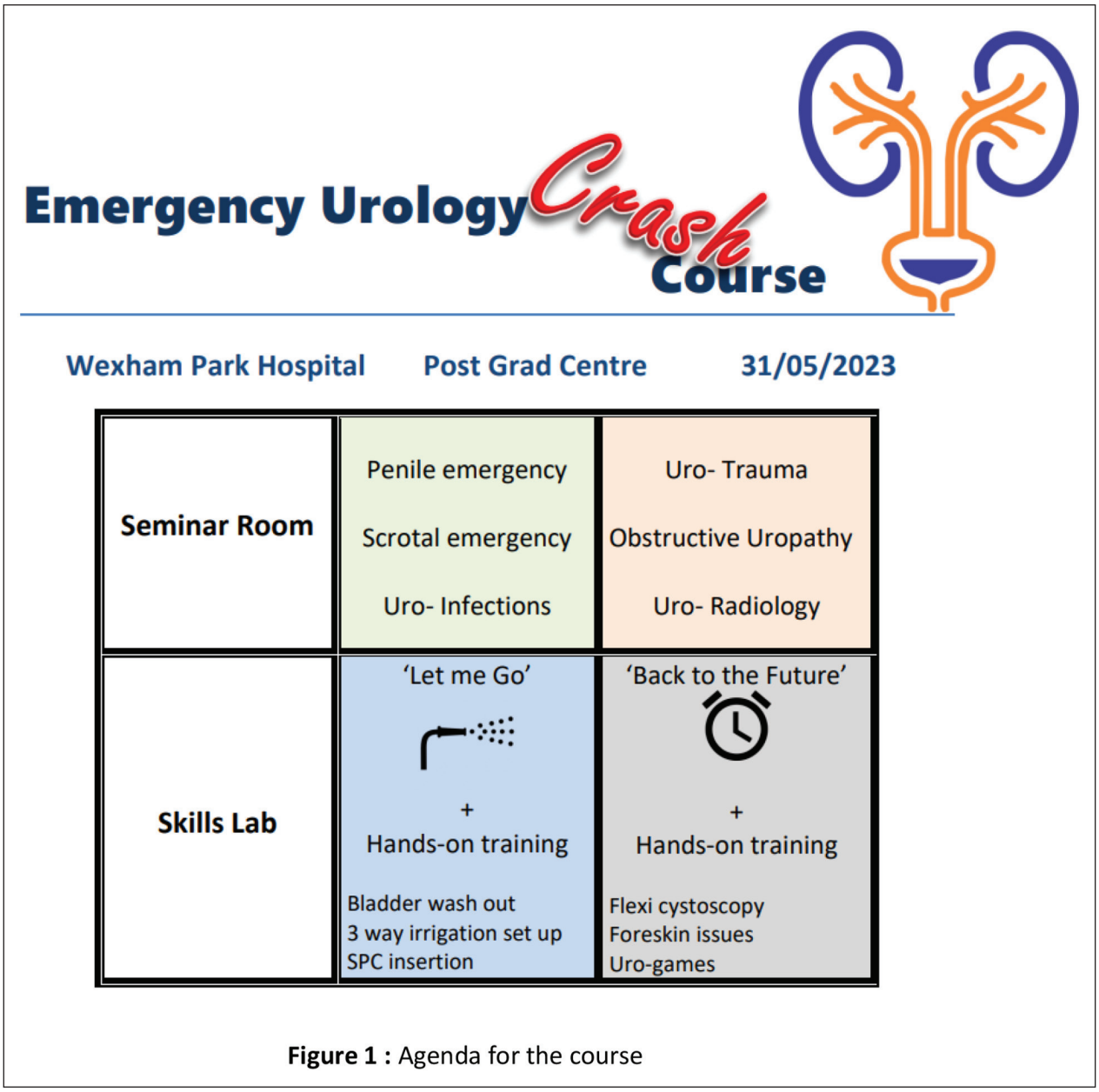


Figure 1 : Agenda for the course

P6-4 Supporting performance from outside the operating theatre: A pilot study of the acceptability and relevance of performance enhancement coaching to newly appointed urology trainees

Miss Lilli Cooper[1], Mr Karan Wadhwa[2], Mr Mark Rochester[3], Mr Chandra Shekhar Biyani[4], Mrs Ruth Doherty[3]

[1]Real Battersea Clinic, London, United Kingdom, [2]Broomfield Hospital, Chelmsford, United Kingdom, [3]Norfolk & Norwich University Hospital, Norwich, United Kingdom, [4]Leeds Teaching Hospitals NHS Trust, Leeds, United Kingdom

Introduction: Performance enhancement coaching (PEC) is established in professional sport, but is rarely taken up by surgeons, despite encouraging results in improving surgeons' technical skill and wellbeing. This study aimed to assess the feasibility and acceptability of PEC for newly appointed urology registrars.

Materials and Methods: All delegates on the Urology Bootcamp 2023 were invited to take part in an online survey around surgical performance before, and after, a two-hour PEC workshop, delivered by a surgeon with a professional coaching qualification, to groups of four delegates at a time over four days. Ten pre-defined focus areas were offered during the session.

Results: Anxiety during performance was the most common concern (63%), associated with a tremor in 55%. At 19% of responses each were: sleep, insufficient operative skill, and worry about relationships with trainers. The

commonest topics selected were 'the inner critic' (100%), 'autonomic modulation' (69%), 'not working, well' (13%) and 'optimising study' (6%). 77% were unaware of PEC for practising surgeons. All respondents felt that they would benefit from PEC to some extent, 80% 8/10 where 10/10 was 'very useful'), ideally around ST3 level. 62% of respondents deemed a fee for trainees appropriate, whereas 38% thought it should be free and paid for by their training authorities.

Conclusions: The concept of PEC is acceptable to ST3 Urology trainees, with particular interest in techniques to mitigate negative self-talk and autonomic modulation techniques. Existing barriers to coaching for the surgical community would need to be addressed in designing an acceptable coaching programme.

P6-5 DiffErential attainment and Factors AssoCiated with Training applications and Outcomes (DE FACTO) Study: Urology in the United Kingdom

Miss Martina Spazzapan[1], Mr Siddarth Raj[2], Miss Sarika Grover[2], Dr Beth Russell[3], Mr Simon Fleming[4], Ms Stella Vig[5], Mr Sachin Malde[1]

[1]Urology Department, Guy's and St. Thomas' NHS Foundation Trust, London, United Kingdom, [2]University Hospitals Coventry and Warwickshire NHS Trust, Coventry, UK, Coventry, United Kingdom, [3]Translational Oncology and Urology Research (TOUR), School of Cancer and Pharmaceutical Sciences, King's College London, London, United Kingdom, [4]Department of Trauma and Orthopaedics, Barts Health NHS Trust, London, United Kingdom, [5]Department of Vascular and General Surgery, Croydon Health Services NHS Trust, London, United Kingdom

Introduction: This study aims to investigate the demographic, socioeconomic, and educational factors associated with core surgical trainees' application for and acceptance into a Urology higher surgical training (Speciality Trainee year 3, or ST3) post in the UK.

Patients and methods: This retrospective longitudinal cohort study utilised data from the UK Medical Education Database. Our study population comprised 1960 doctors who were eligible to progress to higher surgical training between 2014-2019. The primary outcomes of interest were the application for and acceptance into a Urology ST3 post. A directed acyclic graph was used to identify confounders and adjust logistic regression models. The analysis is based on raw numbers; however, certain figures and percentages may seem inaccurate due to statistical disclosure control constraints.

Results: Among 275 ST3 applicants, 175 (64.81%) were male and 155 (57.41%) were white. None of the study variables (age, sex, ethnicity, socioeconomic or educational factors) were associated with an increased likelihood of applying for Urology training. Age, ethnicity, socioeconomic and educational factors did not impact the odds of receiving an offer; gender favoured women, with 60/95 (63.16%) of female applicants being offered a post compared to 85/175 (48.57%) of male applicants (OR 1.80, 95% CI 1.09-3.00).

Conclusions: Overall, our data suggests that there might be an association between gender and receiving an ST3 offer favouring women. Compounded with initiatives implemented by organisations, societies and the NHS, we hope that these findings will result in the formation of an increasingly diverse senior workforce.

P6-6 The Surgeon as the Second Casualty: Results from a National Survey on the Personal Impact of Complications in Surgeons

Ms Sorcha O'meara[1], Prof. Eva Doherty[2], Prof Kilian Walsh[3]

[1]Dept. of Surgery, Royal College Of Surgeons of Ireland, Dublin, Ireland, [2]Dept. of Surgical Affairs, Royal College of Surgeons of Ireland, Dublin, Ireland, [3]Dept. of Urology, University College Hospital Galway, Galway, Ireland

Introduction: Adverse events and complications are an inevitable part of surgical practice. The negative impact of events may extend beyond the patient to the healthcare workers with potential mental and physical effects. We aim to provide the first data on the second casualty symptoms in surgeons in the Republic of Ireland(ROI).

Methods: Following IRB approval an anonymous online survey was distributed to all surgeons in the ROI. The survey focused on physical and emotional responses to an adverse event or complication, perceived contributing factors and interventions that could be beneficial.

Results: 110 responses were received with the majority (43.6%, N=48) of respondents representing consultant surgeons, with an age range of 24-70 years (mean 40 years). Respondents were more likely to describe an event of Clavien-Dindo 3b or greater (n=90, 82%). 98 (89%) described negative physical or emotional symptoms in the aftermath of an event with a high prevalence of PTSD-symptomatology (N=75, 68%). The majority discussed the event with someone (N=93, 85%), but only 8 respondents (7%) reported awareness of support services. 90% (N=100) agreed that their training should better prepare them for the personal impact of events, and 67% (N=74) were open to formal supports. There was no statistical correlation between age, resilience score or PTSD symptoms.

Conclusions: Second casualty symptoms affect Irish surgeons of all specialties and experience in the aftermath of adverse events and complications. Surgeons describe a lack of assistance in the aftermath and are open to the concept of formal structures.

P6-7 Litigation trends in Urology compared to other surgical specialties in the UK National Health Service: an analysis of claims over 17 years

Dr Abhinav Tiwari[1], Miss Jenni Lane[1], Professor Bhaskar Somani[1,2]
[1]University Hospital Southampton NHS Foundation Trust, Southampton, United Kingdom, [2]Faculty of Medicine, Southampton General Hospital, University of Southampton, Southampton, United Kingdom

Introduction: Surgical specialities account for some of the highest litigation claims and costs due to their invasive nature. This study aimed to analyse and compare the litigation trends in urology with other recognised surgical specialties within the UK National Health Service (NHS), over a 17-year period.
Materials and Methods: Data was requested from NHS Resolutions under the Freedom of Information Act 2000. Data collected included the total number of claims made, the number of successful claims (settled or closed), and the costs in damages paid out, per financial year for each surgical specialty between the period of 2006 to 2023.
Results: 50 819 claims were made across all surgical specialties between 2006-2023. 64.1% (32563/50819) of these claims were successful. The number of successful claims increased 1.8-fold from the start to end of this period (Figure 1). £3.1 billion in damages was paid out due to successful claims. Urology accounted for 7.7% (2511/32563) of all successful claims, and 4.7% (£145 million/£3.1 billion) of damages paid out. There was a 2.9-fold increase in successful claims in urology from the start to end of this period. Regarding the number of successful claims, urology was surpassed only by orthopaedics (42.4%) and general surgery (29.2%). Regarding damages paid out, urology was surpassed by orthopaedics (40.4%), general surgery (25.6%), neurosurgery (13.4%) and vascular surgery (5.1%).
Conclusions: The number of successful litigation claims in surgical specialties is rising. Urology accounts for a small but significant proportion of litigation claims and costs within the NHS.

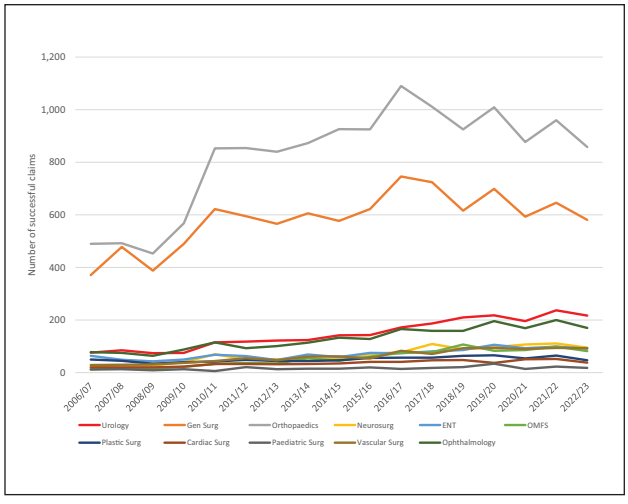


Figure 1. Number of successful litigation claims per financial year stratified by surgical specialty between the period of 2006 to 2023.

P6-8 Have Information Videos Improved Patient Understanding of Complex Urological Surgeries?

Mr Chris Richards[1], Dr Sohail Nakhuda[1], Mr Craig Jones[1], Mr Pete Smith[1], Mr Yuhao Zhang[1], Ms Emma Ryan[1], Mr Steve Bromage[1], Mr James Dyer[1], Mr Paul Cleaveland[1]
[1]Stockport Nhs Foundation Trust, Manchester, United Kingdom

Introduction: Our institution published patient information videos (PIVs) for complex urological procedures aiming to improve patient understanding of their perioperative care. We aimed to gauge understanding and satisfaction for those who recently underwent robot-assisted prostatectomy, robot-assisted cystectomy, robotic partial nephrectomy, and laparoscopic nephrectomy, and assess whether the PIVs were effective.
Patients and Methods: 321 patients who underwent those procedures were randomly selected and sent a questionnaire asking:

- whether they had seen the relevant PIV prior to their surgery (they were categorised into Video and Non-Video Groups);
- on a 5-point scale to what extent they understood various aspects of the perioperative period (this was used to produce Understanding Scores (U-Scores, %) for each patient);
- on a 5-point scale how satisfied they were with the information they received and with their experience overall.

Results: Compared to the Non-Video Group, the Video Group had greater U-scores, and better satisfaction of the information they received and their experience overall (Table 1). In the Video Group, no patients rated their satisfaction with their information below 4, and only one patient rated their overall satisfaction below 4.
Age was comparable between groups.
Conclusions: Overall patients had a very good perceived understanding and were very satisfied. This was more pronounced for patients who had watched the PIVs. There was no evidence that age was a barrier to accessing the PIVs. The PIVs are a valuable resource for patients, especially those who struggle to digest written or verbal information, and urologists who are facing increasingly time-pressured clinics.

Table 1. Comparison of ages and questionnaire results between the two groups.

	Video Group	Non-Video Group	p-value
Number of responses (% of total)	53	96	
Mean age, years (range)	66.6 (47-81)	68.7 (38-83)	0.155
Mean overall satisfaction with experience, 1-5 (range)	4.74 (2-5)	4.51 (1-5)	0.106
Mean overall satisfaction with information, 1-5 (range)	4.81 (4-5)	4.52 (2-5)	**0.014**
Mean understanding score (US), % (range)	92.2 (72.6-100)	86.3 (20.0-100)	**<0.01**

P6-9 Use of QR codes in the urology outpatient department: Acceptability for patients and staff

Dr Ashwini Kulkarni[1], Ms Jessica Gallagher[1], Prof Hashim Hashim[1]
[1]Bristol Urological Institute, Bristol, United Kingdom

Introduction: Written information helps patients understand their care. The British Association of Urological Surgeons (BAUS) has more than 150 patient information leaflets, which can all be converted to QR codes. Most have over 5 pages of printed information. Reducing printer and paper usage supports the NHS carbon-zero initiative.

Patients and methods: The project was completed in a tertiary-centre urology department. Survey 1 assessed patient demographics, technology use and preference for information format. Survey 2 trialled the use of a QR code to assess patient acceptability.

Survey 3 (clinical staff) and survey 4 (non-clinical staff) were completed regarding current practice and attitudes towards QR code usage.

Results: Results from survey 1 and 2 are shown in figure 1.

Figure 1: Results from surveys 1 and 2

Survey 1: Patient demographics and preference for receiving information						
Total: 75	Male: 52 (69%)		Female: 22 (29%)		Unknown: 1 (2%)	
Age group	<18: 0	18-34: 3 (4%)	35-54: 17 (23%)	55-74: 29 (39%)	>75: 26 (34%)	Unknown: 0
Written information is useful	Strongly agree: 48 (64%)	Agree: 16 (22%)	Unsure: 5 (7%)	Disagree: 0	Strongly disagree: 0	Not answered: 4 (6%)
Access to digital device	Yes: 68 (91%)			No: 7 (9%)		
Preference for receiving information	Digital: 35 (47%)		Digital or paper: 13 (17%)		Paper: 27 (36%)	
Survey 2: Patient trial of QR code for patient acceptability						
Total: 15	Male: 12 (80%)		Female: 3 (4%)		Unknown: 9 (12%)	
Scanning a QR is easy	Yes: 14 (93%)		No: 0		Unsure: 1 (7%)	
Information is easy to read on a phone	Yes: 14 (93%)		No: 0		Unsure: 1 (7%)	
I would use this in the future	Yes: 9 (60%)		No: 2 (13%)		Unsure: 4 (27%)	

Survey 3 was completed by 16 clinical staff.

- 100% always or sometimes provide written information for patients.
- 100% had experienced issues with printers.
- 100% would be prepared to use QR codes.

Survey 4 was completed by 7 non-clinical staff.

- 71% had experienced issues with printers.
- 71% would support the use of QR codes in clinic letters.

Conclusions: Across a range of age groups, QR codes and receiving information digitally were considered acceptable and 47% preferred this to printed leaflets. Clinical and non-clinical staff are prepared to use QR codes and most have experienced difficulties with printing leaflets. Reducing the use of printed leaflets could improve efficiency and reduce the carbon footprint for hospitals. Further work is required into providing digital information in a range of languages to improve patients' understanding of their care.

P6-10 Exploring Sustainable Practices: Unveiling Evidence in Urology

Dr Habeeb Abdulrasheed[1], Mr Daniel Madarshahian[1], Mrs Banan Osman[1]
[1]Heartland Hospital, University Hospital Birmingham NHS Trust, Birmingham, United Kingdom

Introduction: The healthcare industry contributes about 4% of global carbon emissions. The NHS is striving for a net-zero carbon footprint by 2045. Conducting a literature review, we delved into the carbon footprint of urological procedures and identified strategies to minimize greenhouse gas emissions related to urology services.
Methodology: In November 2023, a comprehensive systematic literature search using MedLine, Embase, and Google Scholar yielded fourteen relevant articles.
Result: In our research, six studies were identified that assessed the environmental impact of single-use and reusable urology devices (e.g., cystoscopes, ureteroscopes). Three studies favored single-use devices, two supported reusable options, and one found no significant difference. Notably, the sterilization process for reusable devices emerged as a substantial contributor to the carbon footprint.
To enhance sustainability in urology, reviewed articles suggested measures such as increasing day case procedures, minimizing low-value clinical care, exploring drapeless cystoscopy, implementing fluid management systems, one-stop urology clinic, use of barcodes in clinical letters and promoting eco-friendly anaesthetics like spinal, local, and propofol-based anaesthetics.
Conclusion: Sustainability in healthcare is ever-changing. Just endorsing reusable equipment falls short; we must tackle the carbon footprint from the sterilization process. Promoting low-emission anaesthetics is crucial. Future research should prioritize assessing the environmental impact of suggested initiatives for urology sustainability. A one-stop clinic in urology and leveraging barcodes in clinical letters could have a noteworthy sustainability impact. Centralizing services may cut patient travel, lowering carbon emissions. Streamlined processes can optimize resource use and minimize waste, contributing to overall sustainability in urological care.

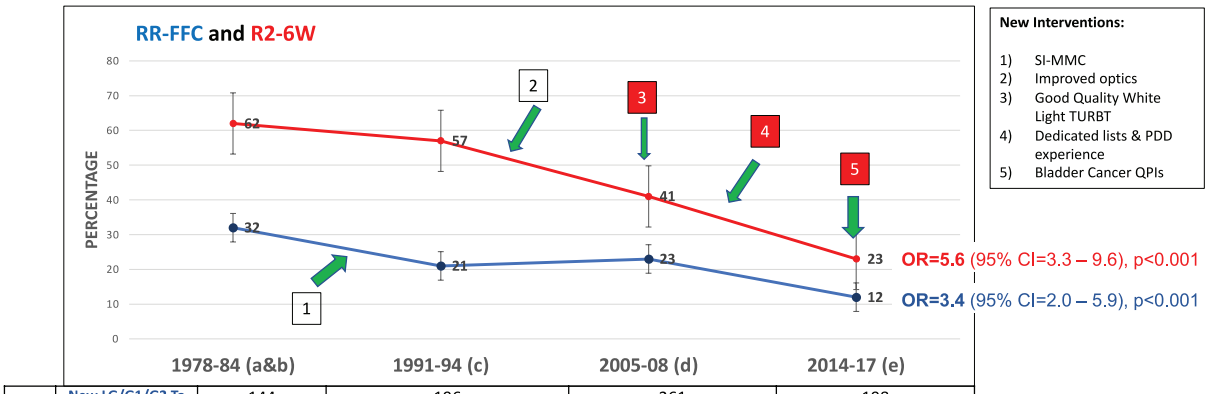
ePoster Session 7 Bladder Cancer: Muscle & Non-Muscle Invasive, Wednesday 26 June, 0800-0900, Hall 4

P7-1 Quality improvement in TURBT: Experience from one centre with 45 years of prospectively collected data

Professor Paramananthan Mariappan[1,2], Mrs Tanya Lord-McKenzie[1], Ms Silje Welsh[3], Dr Joni Miller[3], Dr Sorna L Paramananthan[4], Dr Amy Forbes[3], Ms Grace Loy[4], Dr Serena Baker[4], Mr Roland Donat[3], Mr Gordon Smith[3]
[1]Edinburgh Bladder Cancer Surgery (EBCS), Western General Hospital, Edinburgh, United Kingdom, [2]The University of Edinburgh, Edinburgh, United Kingdom, [3]Department of Urology, Western General Hospital, Edinburgh, United Kingdom, [4]Edinburgh Medical School, The University of Edinburgh, Edinburgh, United Kingdom

Introduction: The quality of the initial TURBT is crucial to outcomes. In 2005 an effectiveness and efficiency programme was introduced into our bladder cancer service through which preceding and subsequent prospectively collected real world data informed performance as well as permitted systematic introduction of evidence-based interventions into clinical practice. We describe the consequent changes to TURBT quality over 45 years.
Materials and Methods: The Donabedian model of structure-process-outcomes was adopted for continuous quality improvement; and interventions to improve TURBT were implemented and evaluated using the Deming cycle. Interventions included single post-TURBT instillation of Mitomycin-C (SI-MMC), Photodynamic Diagnosis training, dedicated TURBT lists and Quality Performance Indicators. Data on tumour features, surgery and follow up were collected prospectively on standard proformas with electronic transfer since 1978. Continuous audit and feedback evaluated performance, informing subsequent remedial interventions. Primary endpoints representing quality of initial TURBT were recurrence rate at first follow up cystoscopy (RR-FFC) and residual cancer at reTURBT (R2-6W) for low and high grade NMIBC, respectively.

Figure 1: Changes in the Quality of TURBT over 45 years represented by snapshots of Recurrence Rate at First Follow Up Cystoscopy (RR-FFC) in low grade NMIBC and residual cancer at re-TURBT (R2-6W) in high grade NMIBC.



N					
	New LG/G1/G2 Ta	144	196	261	198
	New HG/ G3 Ta/T1	109	110	151	153

Results: From a total of 1,322 consecutive new NMIBC patients, analysed in four separate cohorts, initial TURBT was undertaken in 1978-84 (n=152), 1991-96 (n=196), 2005-08 (n=310) and 2014-17 (n=351), providing snapshot audits of TURBT quality, commensurate with specific interventions introduced into our service at those time points.

Figure 1 reveals significant reduction in snapshots of RR-FFC (OR=3.4, 95%CI=2.0-5.9, p<0.001) and R2-6W (OR=5.6, 95%CI=3.3-9.6, p<0.001) over 45 years.

Conclusions: Our experience suggests systematic, dynamic continuous audit and oversight with specific remedial interventions can improve the quality of TURBT.

P7-2 Does enhanced audit and feedback with education improve quality indicator (QI) achievement and reduce early recurrence rates in TURBT surgery for NMIBC? Results from the RESECT cluster randomised trial

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Aims: This study aimed to determine if enhanced feedback and education improves TURBT QIs and early recurrence rate.

Methods: This is an international, multi-centre observational study with an embedded cluster randomised trial of an institution-targeted performance feedback and educational tool (intervention) versus standard of care (no performance feedback;control). Patients having primary TURBT for presumed NMIBC were included. Co-primary outcomes were 4 TURBT QIs;our secondary outcome was early recurrence rate at first check cystoscopy.

Results: From 05/10/21 to 15/03/23, 219 sites were randomised, data from 15,879 patients (201 sites) were included in final analysis.Sites having feedback and education had significantly greater achievement of both documentation outcomes (Adjusted mean difference (95% CI), RESDOC: 5.6%(1.6,9.6) p=0.006; TUMF-DOC: 6.1%(1.8,10.3) p=0.005). There was no difference in single instillation intravesical chemotherapy (SI-IVC) rates, detrusor muscle (DM) sampling nor early recurrence between arms.

There was a significant Hawthorne effect: in the control arm, the early recurrence rate was significantly lower during the study versus at baseline after adjusting for tumour size, number, grade and stage (Recurrence rate baseline: 679/2748 (24.7%) vs during study: 415/2245 (18.5%), Adjusted difference -5.5%(-7.7%,-3.2%), p-value<0.001) (Figure 1).

Conclusion: Audit and feedback with education about TURBT performance improves documentation over the effect of being observed but not SI-IVC, DM or recurrence rate. Participation in a global TURBT study was

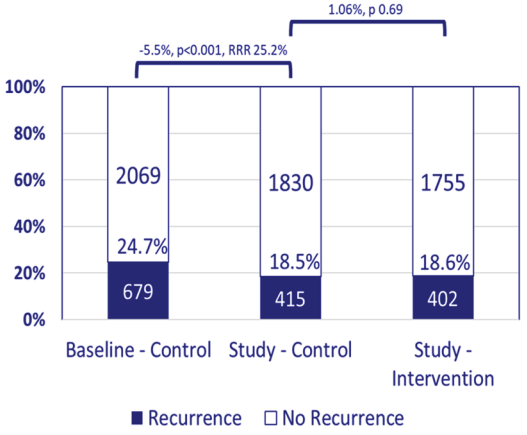

Figure 1. Recurrence rate in the control arm at baseline, and during the study and recurrence rate compared between control and intervention arms (enhanced feedback and education). Whilst the intervention appears to have no effect, there is an apparent significant Hawthorne effect.

associated with a significant reduction in recurrence rates, suggesting the benefit of organised audits in TURBT practice.

P7-3 Effectiveness of joint specialist POPS (Peri-Operative care of Older People undergoing Surgery) and Urology management in bladder cancer patients with apparent frailty

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Introduction: Surgical intervention may not be appropriate in frail patients with new or recurrent bladder cancer. To ensure that their care is aligned to the principles of "Realistic Medicine" (DOI: 10.1016/j.pec.2019.06.024), we developed a structured programme of joint management between our Peri-Operative care of Older People undergoing Surgery (POPS), Anaesthetic and Urology teams. This analysis examines our experience.

Materials and Methods: Patients listed for surgery and deemed to be frail at initial screening, underwent Comprehensive Geriatric Assessment by POPS colleagues, followed by specialist anaesthetic (if indicated) and surgical evaluations. Validated measures of frailty, cognition and function were used. Each patient had a joint consultation with a bladder cancer and POPS specialist. Patient details and clinical metrics were recorded prospectively on a POPS database, with clinical follow-up records maintained electronically.

Results: From a total (approximately) of 460 suspected or confirmed bladder cancer patients in the POPS database, 100 were reviewed in the joint POPS-bladder cancer specialist clinic between January 2017 and December 2023. Moderate/ severe frailty was noted in 53%. Only 20% of patients proceeded with the intended surgery (GA cystoscopy/ TURBT/ cystectomy). The majority of patients were recommended to receive Best Supportive Care (45%), active surveillance (16%), repeat diagnostics (14%) or local anaesthetic fulguration (4%). Over the follow-up period, most did not change from the recommended intervention.

Conclusions: This joint POPS-bladder cancer specialist management appears to be a safe, comprehensive and patient-centred approach to the effective and efficient management of frail patients with bladder cancer.

P7-4 Oncological and Urological Outcomes after Total Pelvic Exenteration for Advanced Pelvic Cancers: A Single-Center Study

Dr Shri-Ishvarya Rajamoorthy[1], Dr Alexandra Uren, Mr Karthik Rajan[2], Mr Mohamed Mubarak[2], Miss Catherine Dixon[1], Miss Faye Jeavons[1], Mr Pradeep Bose[1], Mr Jonathan Featherstone[1], Mr Nicholas Gill[1], Mr Gokul Vignesh Kandaswamy[1]

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Introduction: Total pelvic exenteration (TPE) is a complex yet potentially curative procedure for advanced pelvic malignancies. This study aims to assess patient outcomes after TPE.

Methods: Between February 2010 and May 2023, 136 patients who underwent TPE at our institution were included. Data extraction involved retrospective examination of patient records. We recorded the incidence of peri-operative complications, long-term outcomes and survival rates.

Results: The mean age was 62.9 years (39-87 years). Colorectal malignancy (56%) was the most prevalent indication. 66.2% of patients received either chemotherapy or radiotherapy pre-operatively. The median follow-up duration was 33.5 months (IQR, 14.75-66 months). At 30- and 90-days post-operation, 25% and 28.7% of patients respectively experienced Grade 3 complications or higher. Complications associated with urinary diversion were observed in 26 patients (6 urinary leaks, 19 stoma-related issues, and 7 ileo-ileal anastomotic complications), while

34 patients (25%) experienced wound-related complications. The 30- and 90-day mortality rates were 1.5% and 3% respectively. Overall survival rates at 1, 3, and 5 years were 84.6%, 70.6%, and 61.8% respectively. On average, there was a decline of 17.7 ml/min/m2 in GFR ($p<0.0001$), with 23.5% developing new-onset CKD-3B or worse and 2.9% requiring haemodialysis. Further, 15.4% of patients needed additional urological intervention, while 41.2% showed upper tract changes necessitating prolonged follow-up.

Conclusions: TPE seems to offer long-term survival for approximately 60% of patients with advanced pelvic malignancies, albeit with a higher short-term complication rate, mainly related to wounds. Although delayed urological interventions are infrequent, 40% of patients require extended urological monitoring.

P7-5 The unmet need for bladder sparing treatments in BCG Failure in the UK - mapping to emerging treatment options

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Introduction: Radical cystectomy (RC) remains the gold-standard in BCG failure in the UK but there are an increasing number of bladder sparing treatments (BSTs) in development. In the UK, approved BSTs are limited to cold or device-assisted chemotherapy, BCG re-challenge or endoscopic management. We report on outcomes in patients opting for BSTs and map the potential of new treatments using published data.

Materials & Methods: A single centre audit of patients with BCG failure between January 2017 - September 2022 using BCG unresponsive and exposed categories. Treatment was RC or BST including device-assisted intravesical mitomycin, BCG re-challenge or endoscopic management. Cancer-specific (CSS), cystectomy-free survival and complete response (CR) were measured. Outcomes were compared to published data of novel/new treatments.

Results: 33 patients were diagnosed with BCG unresponsive and 36 BCG exposed failure. There was no significant difference between CSS in the RC or BST groups (p=0.3 Unresponsive, p=0.8 Exposed). 9 BST patients (53%) received 2nd line BST due to recurrence or intolerance and 4 (24%) had 3rd line BST. 12-month CR in the exposed and unresponsive groups was 80% and 43% respectively. Table 1 compares the outcomes with published data.

Conclusion: A quarter of patients with BCG failure opted for BSTs demonstrating a significant patient group that would be eligible for the novel options. Current complete response outcomes in BCG unresponsive disease appear to fall below published data on novel options although are comparable to FDA approved Nadofaragene Firadenovec.

Table

	Exposed		Unresponsive		Pembrolizumab FDA approved Keynote-057*	Nadofaragene Firadenovec Intravesical FDA approved NCT02773849*	IL-15 Superagonist QUILT 3.032*	TAR-200 Intravesical SunRISe-1*	Cretostimogene BOND-003*
	RC Real World	BST Real World	RC Real World	BST Real World					
Median follow up (months)	39.5		31.2		36.4	19.7-20.2	23.9	11	-
Number	26	10	26	7	101	151	84	23	66
CIS Present	50%	70%	62%	100%	100%	58%	40%	100%	100%
Cancer specific survival	95%	90%	96%	86%	-	-	-	-	-
Cystectomy free survival	-	100%□	-	71%•	51%	64.5%	-	-	-
Complete response at: 3 months 6 months 12 months	- - -	90% 80% 80%	- - -	71% 43% 43%	36% 19% na	59.6% 47.7% 30.5%	- - 53.2%	- 93% 84%	68% 63% -

*BCG Unresponsive disease only. □ One patient underwent EBRT for MIBC. • two patients underwent EBRT for MIBC

P7-6 Long Term Outcome of Transurethral Laser Ablation (TULA) of Non-Muscle Invasive Bladder Cancer (NMIBC): A 1-year and 5-year EORTC Risk-Matched Study

Mr Chase Peng Yun Ng[1], Dr Charis Eleftheriou[1], Dr Oliver Hug[1], Dr Ellie Richardson[1], Dr Tarra Gill-Taylor[1], Mr Altaf Shamsuddin[1], Mr Hamid Abboudi[1]
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Patients with NMIBC are often subjected to repeat rigid cystoscopy and resection of bladder tumour under general anaesthesia. TULA serves as an outpatient-based alternative with less morbidity, cost and carbon footprint, but there is limited evidence of its efficacy due to lack of long-term follow up. Our objective was to determine the 1-year and 5-year recurrence and progression rates of patients treated with TULA, stratified by their EORTC risk groups.

We conducted a retrospective cohort study of 215 patients treated with TULA (795 complete procedures) between April 2012 and April 2021 in a single tertiary urology centre. Data collected include patient demographics, bladder tumour profile, EORTC recurrence and progression risk groups, TULA complications and outcomes (EORTC-defined recurrence and progression).

215 and 167 patients were included in the 1-year and 5-year outcome analysis. The 1- and 5-year recurrence rate of NMIBC after TULA were higher than EORTC estimation

Table 1. 1- and 5-Year Recurrence and Progression Rate of Non-Muscle Invasive Bladder Cancer (NMIBC) in Patients Treated with Transurethral Laser Ablation (TULA).

TULA 1-Year Recurrence Rate				
EORTC Risk Group	Number of Patients	Number of Recurrence	Recurrence Rate	EORTC Probability
1 (low risk)	49	14	28.6%	15%
2 (intermediate risk)	160	70	43.8%	24%
3 (intermediate risk)	5	3	60%	38%
4 (high risk)	1	0	0%	61%
TULA 5-Year Recurrence Rate				
EORTC Risk Group	Number of Patients	Number of Recurrence	Recurrence Rate	EORTC Probability
1 (low risk)	40	19	47.5%	31%
2 (intermediate risk)	121	82	67.8%	46%
3 (intermediate risk)	5	4	80%	62%
4 (high risk)	1	0	0%	78%
TULA 1-Year Progression Rate				
EORTC Risk Group	Number of Patients	Number of Progression	Progression Rate	EORTC Probability
1 (low risk)	114	4	3.5%	0.2%
2 (intermediate risk)	53	1	1.9%	1%
3 (high risk)	46	2	4.3%	5%
4 (high risk)	2	1	50%	17%
TULA 5-Year Progression Rate				
EORTC Risk Group	Number of Patients	Number of Progression	Progression Rate	EORTC Probability
1 (low risk)	93	12	12.9%	0.8%
2 (intermediate risk)	39	3	7.7%	6%
3 (high risk)	33	4	12.1%	17%
4 (high risk)	2	1	50%	45%

for low and intermediate risk groups. The 1- and 5-year progression rate of NMIBC were higher than EORTC estimation for low and intermediate risk groups but lower for high risk group. The majority of progression were caused by disease upgrade (58.8%), followed by disease worsening (23.5%) and disease upstage (11.8%). Haematuria, hospital admission and urinary infection rates were 2.0%, 0.9% and 0.1% respectively.

Low and intermediate risk NMIBC patients treated with TULA had higher recurrence and progression rates than EORTC estimation at one and five years. Disease upgrade accounted for the majority of progression. Hospital admission and urinary infection after TULA were uncommon.

P7-7 Fluorescence confocal microscopy performed by the surgical team for the analysis of margins during robotic radical cystectomy – a feasibility study

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[1]University College London Hospital, London, United Kingdom

Introduction: Positive margins following radical cystectomy (RC) are predictors of cancer recurrence. Frozen section analysis (FSA) allows the extension of resection to render the margins negative. Fluorescence confocal microscopy (FCM) offers an alternative to FSA, enabling real-time imaging of fresh tissue. This study assesses the feasibility of FCM to evaluate margins status with specimen processing performed by the surgical team with remote digital pathology review.

Materials and Methods: 10 patients who underwent RC at a single centre were included. FCM analysis was performed on urethral and distal ureteral margins using the Histolog® scanner. Specimen imaging was standardised and performed by the surgical team. Digital images were retrospectively reviewed for interpretability and the presence of malignancy by a uro-pathologist. Analysed specimens were also formalin-fixed and paraffin-embedded (FFPE) to assess concordance.

Results: 73% of FCM images were interpretable. 36% of FCM images encompassed the entirety of the lumen and an additional 36% captured at least 50%. Interpretation time ranged from 2 to 20 minutes, decreasing with experience.

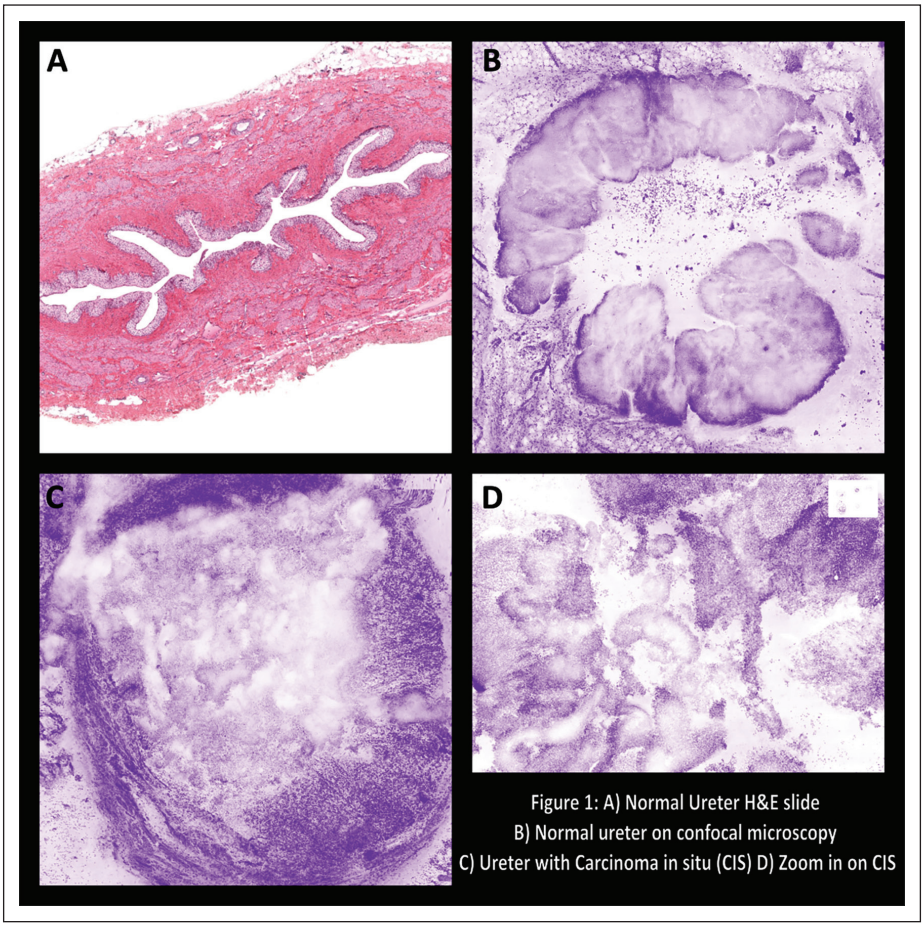

Figure 1: A) Normal Ureter H&E slide
B) Normal ureter on confocal microscopy
C) Ureter with Carcinoma in situ (CIS) D) Zoom in on CIS

FFPE analysis of RC specimens demonstrated 2 patients with CIS at the ureteral margin (Figure) and 1 with CIS at the urethral margin. All interpretable FCM images identified CIS in specimens where FFPE analysis detected it.
Conclusion: FCM can image urethral and ureteral specimens, allowing pathologists to identify benign urothelium and CIS. Specimen preparation by the surgical team resulted in good quality images and rapid interpretation of the digital images was possible. This technique may facilitate real-time remote pathology review, a key advantage over FSA.

P7-8 Impact of palliative cystectomy on the quality of life and hospital admissions in bladder cancer patients

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Introduction: Radical Cystectomy (RC) is the standard treatment for bladder (BC) T2 – T4aN0M0 and selected non-muscle invasive BC. However, in patients with locally advanced disease, palliative cystectomy (PC) is required to manage significant lower urinary tract symptoms (LUTS), uncontrolled haematuria with retention and other symptoms to improve quality of life (QoL).
RC has significant morbidity and that's why PC is not often offered. We aimed to assess PC outcomes for recurrent admissions, symptoms control and overall survival (OS).
Patients and methods: Study cohort included PC patients from January 2015 to December 2023. Data was extracted from prospectively maintained cystectomy database for demographics, admissions before and after PC, surgical outcomes, symptom resolution and OS.
Results: In total there were 20 patients with male (40%), ECOG 0-1 (80%), complications (62%) with Clavien grade (CG) $\geqslant$3 (5%) and OS 20% at 6 months (25% of those alive lived $>$12 months). Median age, fit for home hospital stay, and follow-up were 70 years (53 – 85), 14 days (6 – 45) and 5 months (0.6 – 50), respectively.
Pre-procedure, 70% were anaemic (Hb 80 – 100 G/L). Dominant symptoms included haematuria (50%), severe frequency (40%), lower abdominal pain (30%) and obstructive uropathy (25%). Pre and post PC admission numbers were 2 (1 – 12, 30% $>$2) and 1 (0 – 3), p 0.01. General wellbeing and symptom improvement occurred in 90%.
Conclusions: PC showed acceptable complication rate, few significant complications, acceptable post-operative hospital stays, significant symptom improvement and reduction in hospital admissions.

P7-9 Could we use the bladder tissue microbiome to identify which bladder cancer patients may not respond to standard treatments

Miss Madhavi Natarajan[1], Dr Nicola Annels[2], Mr Matthew Perry[1,2], Dr Izhar Bagwan[1], Prof Hardev Pandha[1,2]
[1]*Royal Surrey Hospital, Guildford, United Kingdom,* [2]*University of Surrey, Guildford, United Kingdom*

Introduction: Bladder cancer is a heterogenous disease that affects males three times more commonly than females. Recurrence-free survival is lower in females compared to males and 30% NMIBC is unresponsive to BCG intravesical treatment and requires radical cystectomy. The microbiome (ecosystem of microbes that reside in healthy and diseased bladder tissue), may be a modifiable target or a biomarker in the prediction and treatment non-responsive disease.
Materials and Methods: Deep, next-generation metagenomic sequencing was performed on DNA extracted from formalin fixed paraffin embedded (FFPE) bladder tissues from patients with normal histology, NMIBC and MIBC at both TURBT and RARC.
Results: 10 healthy bladder samples from patients with no known urological disease (5 males : 5 females) and 75 longitudinal TURBT and RARC specimens from 12 bladder cancer patients (7 males : 5 females) were analysed. Sequencing down to species level was successful in 71 samples following quality control checks. Among the healthy cohort, relative abundance of certain genera appeared consistently in samples including Burkholdericiae (24.6% [SD 0.03]) and Staphylococcacae (15.9% [SD 0.06]). There is clustering of male and female samples on principal component analysis ; linear regression model ($p<0.05$) reveals gender differences in commensal microbial species, including significantly higher relative abundance Clostridium beijerinckii in females.
Conclusions: This study is the first to demonstrate microbiome sequencing at species level in bladder tissue through metagenomic sequencing. Clear differences related to cancer-status and gender may suggest that modulation of the microbiome could be considered as a treatment adjunct in bladder cancer.

P7-10 Incidence and Predictors of Recurrence in Low grade non-invasive Upper tract urothelial cancer following Radical Nephroureterectomy

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Introduction: Upper tract urothelial carcinoma (UTUC) is a rare aggressive cancer. Radical Nephroureterectomy

(RNU) is a potentially curative treatment option for low-risk UTUC. Recurrence following RNU is most commonly seen in the bladder. Systemic recurrence is rare and routine upper tract imaging in the follow-up of low-risk tumours after RNU is not recommended, although this is based on weak evidence.

Material and Methods: All patients diagnosed with UTUC who underwent NFU and confirmed to have low grade G1/2 cancers were enrolled retrospectively from 2004-2023. Demographic data, time from diagnosis to NFU, histology, bladder or systemic recurrence and time to recurrence were assessed.

Results: A total of 164 patients were included in the study with a sex ratio of 1.8:1 (M: F) and a median age of 72 years (48-88 years). Recurrence was identified in 38.1% of patients with bladder being the most common site (97%). 12% of bladder recurrences were high grade and 4.8% of patients had muscle-invasive disease. Systemic recurrences on follow up was seen in 6 patients (3%). 5/6 patients had previous history of bladder cancer and received intravesical therapies. The location were ureter and retroperitoneal nodes and time to recurrence ranged from 1-13 years. The median follow-up time was 47 months and cancer-specific survival at 5 years was 95.1%.

Conclusion: RNU for low-risk TCC had excellent long-term survival. Although bladder recurrences are common, Isolated systemic recurrence in low-grade UTUC following RNU are infrequent. Imaging should only be considered in patients with prior history of bladder cancer and new suspicious of Metachronous disease.

ePoster Session 8 Stones / Imaging / Upper Tract Disorders 2, Wednesday 26 June, 0800-0900, Hall 8

P8-1 Manual Hand-Pump versus Pressurised-Bag Irrigation During Flexible Ureterorenoscopy and the Impact on Intrarenal Pressure : A Multicentre Randomized Trial

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Introduction: We aimed to assess the impact of irrigation technique on human intrarenal pressure during flexible ureterorenoscopy (FURS).

Patients & Methods: A randomized trial recruited patients across 3 hospital sites. Patients undergoing FURS for renal stone treatment with an 11/13 ureteral access sheath(UAS) were randomly allocated to 100mmHg pressurised-bag (PB) or manual hand-pump(HP) irrigation. The primary outcome was mean procedural IRP. Secondary outcomes included maximum IRP, variance, visualization and hand pump force-of-usage. Live intrarenal pressure monitoring was performed using the COMET(TM)II pressure guidewire (Boston Scientific), deployed cystoscopically to the renal pelvis.The operating team was blinded to the IRP. Pressure profiles were analysed using Microsoft Excel.

Results: Thirty-eight patients were randomized, July-November 2023. Final analysis included 34 (PB n=16;HP n=18). Compared to PB irrigation, HP irrigation resulted in significantly higher mean IRP (62.29$\pm$27.45mmHg vs 38.16$\pm$16.84mmHg; p=0.005) and maximum IRP (192.71 $\pm$ 106.23mmHg vs 68.04 $\pm$ 24.16mmHg; $p<0.001$), along with greater variance (1237.76 $\pm$ 1482.18mmHg versus 198.68 $\pm$ 237.66mmHg; p=0.009). Surgeon satisfaction with procedural vision was higher with PB irrigation (score 8.75$\pm$0.58/10) than with HP irrigation (score 6.28 $\pm$ 1.27/10; $p<0.001$). Subjective HP usage force did not correlate with transmitted IRP (Pearson R -0.145, p=0.57). One patient (HP arm) developed urosepsis.

Conclusion: Manual hand pump irrigation resulted in significantly higher and more fluctuant IRP traces than 100mmHg pressurised-bag irrigation, in patients undergoing FURS with laser lithotripsy in the presence of an 11/13Fr UAS. In addition, surgeon-reported force of hand-pump usage correlated poorly with actual IRP, and surgeons reported preferential clarity of vision with PB irrigation.

P8-2 Causal effects of renal cysts on kidney stone disease

Miss Catherine Lovegrove[1,2], Professor John Sayer[3], Professor Rajesh Thakker[1], Professor Michael Holmes[4], Professor Dominic Furniss[1,2], Dr Sarah Howles[1,2]

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Introduction: We undertook genetic and observational analyses to increase understanding of the pathogenesis of kidney stone disease (KSD).

Participants and methods: We performed genome-wide association studies (GWAS) of 25,352 KSD cases (UK Biobank, FinnGen, Biobank Japan) and 5,318 renal cyst cases (UK Biobank). KSD-associated genes, based on proximity and in silico analyses (FUMA), were used for gene-set analyses (GeneAnalytics™, PANTHER™).

Observational analyses (All of Us, UK Biobank) and Mendelian randomisation (MR, UK Biobank) were undertaken.

Results: Transancestry GWAS identified 77 variants and 293 genes associated with KSD. Gene-set analyses indicated enrichment of polycystic kidney disease (PCKD)-associated genes (PKD2, PKHD1, SLC17A3, UMOD, SLC17A1, SLC34A1, CLDN10, MAP1B, SLC22A2, WDR72) and the importance of kidney development pathways. We hypothesised that non-polycystic renal cysts may increase risk of KSD. Individuals with abdominal imaging were identified (All of Us N=100,720, UK Biobank N=20,310) and associations of renal cysts and KSD examined following exclusion of participants with PCKD diagnoses. Participants with renal cysts had a relative-risk of KSD of 2.37 in All of Us and 2.47 in UK Biobank ($p<0.0001$). MR using 5 genetic instruments for renal cysts demonstrated evidence of a potential causal effect of liability to renal cysts and risk of KSD (odds-ratio=1.20, 95%-CI=1.01-1.41, p=0.04, UK Biobank).

Conclusions: Our study indicates that non-polycystic renal cysts may increase KSD risk. We propose that perturbations of urinary flow act in concert with factors affecting urinary composition and crystal adhesion to increase KSD risk, forming a lithogenic triad analogous to Virchow's triad of vascular thrombosis.

P8-3 Genetic variants associated with DGKD, CYP24A1, and SLC34A1 predisposing to increased risk of kidney stone disease via effects on serum calcium or phosphate concentrations

Miss Catherine Lovegrove[1,2], Michelle Goldsworthy[1], Jeremy Haley[3], Diane Smesler[3], Fadil Hannan[1], Monish Suri[4], Omid Sadeghi-Alavijeh[5], Daniel Gale[5], Michael Holmes[6], Rajesh Thakker[1], Dominic Furniss[1,2], Sarah Howles[1,2]

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Introduction: Kidney stone disease (KSD) is commonly associated with abnormalities of mineral metabolism. We sought to define genetic variants and pathways increasing risk of KSD via altered serum calcium and phosphate concentrations and estimate utility of modulating these pathways to prevent KSD.

Methods and materials: We used Mendelian randomisation (MR) techniques and genetic colocalization in the UK Biobank. We undertook studies of calcium-sensing receptor (CaSR) signalling in vitro.

Results: We identified putative non-coding causal variants in proximity to DGKD (diacylglycerol kinase delta), CYP24A1 (cytochrome P450 family 24 subfamily a member 1), and SLC34A1 (solute carrier family 34 member 1) that increased KSD risk by increasing serum calcium or decreasing serum phosphate concentrations. DGKD is a CaSR-signalling partner and CaSR loss-of-function mutations cause hypercalcaemia. Reduced DGKδ expression and rare KSD-associated DGKD variants (Ile91Val, His190gln, Ile221Asn, Thr319Ala, Val464Ile, Arg900His, Arg1181Trp) impaired CaSR-signal transduction in in vitro SRE-assays; effects were ameliorated by a positive CaSR-allosteric modulator. MR indicated that reducing serum calcium concentrations via CaSR would decrease KSD risk (1 standard deviation alteration (SD), OR=0.69, 95% CI=0.59-0.82). Biallelic CYP24A1 and SLC34A1 loss-of-function mutations cause infantile hypercalcaemia and KSD via impaired 1,25-hydroxyvitamin-D inactivation and renal phosphate leak, respectively. MR indicated that targeting CYP24A1 to reduce serum calcium (1-SD alteration OR=0.12, 95% CI=0.09-0.15) and SLC34A1 to increase serum phosphate (1-SD alteration OR=0.07, 95% CI=0.04-0.1) may prevent KSD.

Conclusions: DGKD-, CYP24A1-, and SLC34A1-associated variants increase KSD risk via reduced CaSR-signal transduction, impaired 1,25-hydroxyvitamin-D inactivation, and increased urinary phosphate excretion, respectively. Modulating these pathways may prevent KSD.

P8-4 Adverse events related to holmium laser fibers and laser machines during ureteroscopy and stone lithotripsy: Insights from an updated 10-year analysis of the US MAUDE database

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Introduction: Ureteroscopy and laser lithotripsy has become a standard of care for patients with kidney stone disease(KSD). Our aim was to analyse the Manufacturer User and Facility Device Experience(MAUDE) database to evaluate the burden of adverse events related to laser fibers and laser machines.

Methods: Search was performed of MAUDE database for all events related to holmium laser fibers and machines during ureteroscopy(2012-2021). Information collected

included: problem, timing, prolonged anaesthesia, early termination of procedure, injury and retained parts.
Results: 699 holmium laser fiber events were reported (manufactured by 13 different companies), with commonest being breakage outside the patient while in use (26.3%) and breakage of the laser fiber tip (21.2%). The root cause was laser failure in 8.9%, and 29% issues occurred before activation of laser, with 5.2% procedures cancelled due to the event. Significantly more injuries were sustained intraoperatively by operating staff compared to patients (6% vs. 0.2%,$p<0.001$). These injuries were superficial burns to the skin with the hand being the most affected body part(88.1%), and zero ocular injuries were reported. Only eight events were related to laser machines, all with sudden hardware failure but no patient injury.
Conclusion: Laser fibers are fragile and most adverse events were from operator error. Direct patient injury from laser fiber is scarce but operating staff should be aware of the risk of sustaining minor burns. Laser machines rarely incur problems and did not result in any safety issues beyond need to abort the procedure. No eye related adverse events were noted.

P8-5 Comparative study of Thulium fibre laser vs Holmium laser for kidney stones in miniaturized percutaneous nephrolithotomy: A randomised controlled single centre trial

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Introduction: Ho:YAG laser method is the gold standard in ureteroscopy. In vitro studies have demonstrated superiority of TFL laser's dusting ability and stone ablation. This is a extremely useful attribute in RIRS but it remains to be seen if it proves advantageous in miniPCNL milieu where we need fragments large enough to be removed by the whirlpool effect. The present study aimed to assess the safety and effectiveness of the new TFL in stone lithotripsy.
Methods: A single-center, prospective RCT of 60 adult patients with renal calculus between 1-3 cm. Stone characteristics were calculated using pre-operative CT IVP/KUB. Patients underwent miniPCNL with a 12 Fr Storz miniPCNL scope and a 15.5/16.5 Fr sheath. Patients were equally randomized using a computer generated software to Ho:YAG or TFL laser arm. Stone fragmentation was carried out using the settings of 1J,10Hz (maximum power = 15 Watt). Sphinx Junior 30 Watt LASER machine was used in the Ho:YAG arm and Urolase-SP 35 Watt LASER was used in the TFL arm. Postoperatively CT KUB was performed at 1 month
Results: The two arms were comparable for baseline characteristics. In the TFL arm, the stone fragmentation rate was significantly higher ($p<0.001$) and the lasing time was lesser (p=0.006). No significant difference was noted in the stone free rate intraoperatively (p=0.221) and at 1 month (p=0.339)
Conclusion: In miniPCNL, TFL offers higher stone fragmentation rate, lesser operative time and lesser retropulsion. However, the stone clearance rate at 1 month was comparable between the two arms.

P8-6 How much energy do we need to ablate 1 cubic millimeter of stone during Thulium Fiber laser lithotripsy? An in vitro study

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Introduction: Both Holmium:yttrium-aluminium-garnet(Ho:YAG) and Thulium Fiber(TFL) lasers can effectively treat all urinary stone types. This TFL in vitro study evaluated the ablation volume per pulse (AVP) and required energy needed to ablate 1mm3 (RE, J/mm3) of various stone types at different laser settings.
Methods: 272µm core-diameter laser fibers(Boston Scientific©) were connected to a 50Watts TFL generator (IPG®). An experimental setup immerged human stones of calcium oxalate Monohydrate(COM), uric acid(UA) and cystine(CYS) with a single pulse lasing emission(0.5/0.8/1J), in contact mode. Stones were dried out before three-dimensional scanning to measure AVP and deduce from the pulse energy (PE) and AVP the RE. A direct comparison with known Ho:YAG's AVP and RE was then carried out.
Results: AVP for COM stones were significantly greater than those for CYS stones and similar to UA stones (p=0.02 and p=0.06, respectively). If AVP increased with PE against COM and UA stones, AVP decreased against CYS stones. 1J PE resulted in a threefold lower RE compared other PE for COM stones. On the contrary, RE for CYS increased with PE, whereas PE did not had influence on RE for UA. TFL was associated with greater AVP for COM, but lower for UA and CYS stones compared to Ho:YAG laser.
Conclusions: This in-vitro study firstly describes the ablation volume per pulse and required energy to treat a cubic millimeter of three frequent human stone types, and suggest TFL could not be suited for cystine. Therefore, stone composition could be considered when choosing the laser source for lithotripsy.

Table I. Comparative ex vivo ablation volume per pulse between Holmium:YAG and Thulium Fiber Lasers (HoYAG : Holmium YAG; TFL : Thulium Fiber Laser).

EX VIVO STONE	PULSE ENERGY	ABLATION VOLUME (µm³)				REQUIRED ENERGY TO TREAT 1mm³ (J)			
		Ho:YAG	TFL	p-value	All settings	Ho:YAG	TFL	p-value	All settings
CALCIUM OXALATE MONOHADRATE	0,5(TFL) /0,6(Ho:YAG)	17,7±2	58,6±27	0,1	35,9±20 vs 258±21 **(0,006)**	34 ± 3,3	10 ± 4,9	**0,003**	24 ± 9 vs 5,36 ± 4,4 **(<0,001)**
	0,8	35,6±8	287±109	0,05		23,2 ± 5,2	3,18 ± 1,5	**0,01**	
	1	71,1±17	429±250	0,1		14,7 ± 3,9	2,90 ± 1,5	**0,01**	
URIC ACID	0,5(TFL) /0,6(Ho:YAG)	198,1±44	76,4±14	0,09	303±126,2 vs 139±50 **(0,003)**	3,2 ± 0,6	6,70 ± 1,2	**0,01**	2,5 ± 0,7 vs 5,80 ± 1 **(<0,001)**
	0,8	360,1±123	147,8±16	**0,03**		2,4 ± 0,7	5,46 ± 0,6	**0,009**	
	1	507,4±120	192,9±25	0,11		2 ± 0,5	5,23 ± 0,6	**0,001**	
CYSTINE	0,5(TFL) /0,6(Ho:YAG)	85,3±8	76,3±59	0,26	101,1±47 vs 49,3±36 **(0,04)**	8,5 ± 1,8	10,3 ± 8,1	0,77	7,6 ± 3 vs 20,8 ± 10,3 **(0,007)**
	0,8	136,9±71	33,1±4	0,38		7,8 ± 5,8	24,4 ± 3,1	**0,009**	
	1	168,3±48	35,8±12	0,50		6,4 ± 2,2	27,8 ± 9,3	0,06	

P8-7 Comparative study of Thulium fibre laser vs Holmium laser for kidney stones in miniaturized percutaneous nephrolithotomy: A randomised controlled single centre trial

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[1]Muljibhai Patel Urological Hospital (MPUH), Nadiad, India

Introduction: Ho:YAG laser method is the gold standard in ureteroscopy. In vitro studies have demonstrated superiority of TFL laser's dusting ability and stone ablation. This is a extremely useful attribute in RIRS but it remains to be seen if it proves advantageous in miniPCNL milieu where we need fragments large enough to be removed by the whirlpool effect. The present study aimed to assess the safety and effectiveness of the new TFL in stone lithotripsy.

Methods: A single-center, prospective RCT of 60 adult patients with renal calculus between 1-3 cm. Stone characteristics were calculated using pre-operative CT IVP/KUB. Patients underwent miniPCNL with a 12 Fr Storz miniPCNL scope and a 15.5/16.5 Fr sheath. Patients were equally randomized using a computer generated software to Ho:YAG or TFL laser arm. Stone fragmentation was carried out using the settings of 1J,10Hz (maximum power = 15 Watt). Sphinx Junior 30 Watt LASER machine was used in the Ho:YAG arm and Urolase-SP 35 Watt LASER was used in the TFL arm. Postoperatively CT KUB was performed at 1 month

Results: The two arms were comparable for baseline characteristics. In the TFL arm, the stone fragmentation rate was significantly higher ($p<0.001$) and the lasing time was lesser ($p=0.006$). No significant difference was noted in the stone free rate intraoperatively ($p=0.221$) and at 1 month ($p=0.339$)

Conclusion: In miniPCNL, TFL offers higher stone fragmentation rate, lesser operative time and lesser retropulsion. However, the stone clearance rate at 1 month was comparable between the two arms.

P8-8 New imaging findings rate and impact during stone multidsciplinary team meeting: A retrospective analysis

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Objectives: Multidisciplinary-Team meetings(MDTs) for decision-making are well established in Urological Oncology, but their role in urolithiasis remains under debate. This study aimed to analyze the accuracy of pre-reported imaging during a stone-MDT(sMDT).

Methods: Cases were retrospectively reviewed from a single-centre sMDT between January 2022 and December 2023. Incorrect reports(IR) were defined as radiological observation/interpretation errors and unreported findings(UF) as missed findings, either related or unrelated to the urinary tract. Cases without full data(images/reports/clinical data) were excluded. Patient demographics, sMDT query and radiological findings were recorded. The IR/UF-sMDT correction's impact on patient care was defined as major(change of surgical plan, including cancellation) or minor(medication or follow-up modification). IR/UF-sMDT delays were also calculated. Subgroup analyses included a comparison between "in-house" and "outsourced" radiologists' reports.

Results: 58 misreports were identified, representing 2.5% of the patients discussed (58/2325sMDT cases). Patients were 57±16years, with a 2:1 M:F sex ratio. 83% had been referred locally and 81% had urolithiasis(Table1). Most cases were discussed for surgical planning(62%) or diagnosis(38%). 83% of misreports were urological(evenly split between IR(52%) and UF(48%)) and directly affected the sMDT decision in 93% of cases, mostly with a major impact(78%). The median IR/UF-sMDT interval was 14days(7-33)days. Misreports were more frequent in "outsourced" compared to "in-house" reports(57%vs43%), but without difference on patient's care.

Conclusions: Misreports related to urolithiasis occur in 2.5% of cases, and have a major impact on patient's care, particularly related to surgical decisions. As such, for every forty sMDT discussions, one patient will benefit from a radiological misreport correction and amended surgical plan.

Table 1. Unplanned imaging findings during multidisciplinary team meetings (MDT).

	VARIABLE		VALUE
GENDER	Male		67%(39/58)
	Female		33%(19/58)
AGE			57±16 YEARS
TYPE OF REFERAL	Local		83%(48/58)
	External		17%(10/58)
MAIN DISEASE	Stone		82%(48/58)
	Upper tract urothelial carcinoma		8.6%(5/58)
	Hydronephrosis		3.4%(2/58)
	Non-functioning kidney		1.7%(1/58)
	Loin pain		1.7%(1/58)
	Phlebolith		1.7%(1/58)
	Ureteral stricture		0%
MDT QUERY	Surgical plan		62%(36/58)
	Diagnosis		38%(22/58)
REPORT	Radiologist	«Out-Sourced»	57%(33/58)
		«In-House»	43%(25/58)
	Incorrect reports		52%(30/58)
	Unreported data		48%(28/58)
	Urological (y/n)		Y(83%)/N(17%)
AFFECT OF MISREPORT ON MDT DECISION	Direct		93%(54/58)
	Indirect		5.2%(3/58)
	None		1.7%(1/58)

(Continued)

Table 1. (Continued)

VARIABLE				VALUE
TIME INTERVAL BETWEEN REPORT AND MDT				14(7-33) days
IMPACT ON UROLOGICAL CARE	Major			78%(45/58)
	Minor			21%(12/58)
	None			1.7%(1/58)
OUTCOME	Surgical (stone)			59%(34/58)
	Medical excluding imaging			24%(14/58)
	Referred for surgical management other than stone			10%(6/58)
	Further imaging			6.9%(4/58)
IN HOUSE VS OUT SOURCED RADIOLOGISTS				
		IN HOUSE (25)	OUT SOURCED (33)	p-VALUE
REPORT	Incorrect reports	52%(13/25)	52%(17/33)	0.96
	Unreported data	48%(12/25)	48%(16/33)	
	Urological (y/n)	Y(88%)/N(12%)	Y(79%)/N(21%)	0.35
AFFECT OF MISREPORT ON MDT DECISION	Direct	88%(22/25)	97%(32/33)	0.2
	Indirect	8%(2/25)	3%(1/33)	
	None	4%(1/25)	0%(0/25)	
TIME INTERVAL BETWEEN REPORT AND MDT		14(5-21)	14(9-90)	0.11
IMPACT ON UROLOGICAL CARE	Major	72%(18/25)	82%(27/33)	0.58
	Minor	28%(7/25)	15%(5/33)	
	None	0%	3%(1/33)	
OUTCOME	Surgical (stone)	52%(13/25)	64%(21/33)	0.12
	Medical excluding imaging	20%(5/25)	27%(9/33)	
	Referred for surgical management other than stone	16%(4/25)	6%(2/33)	
	Further imaging	12%(3/25)	3%(1/33)	

P8-9 Patients' priorities in kidney stone disease

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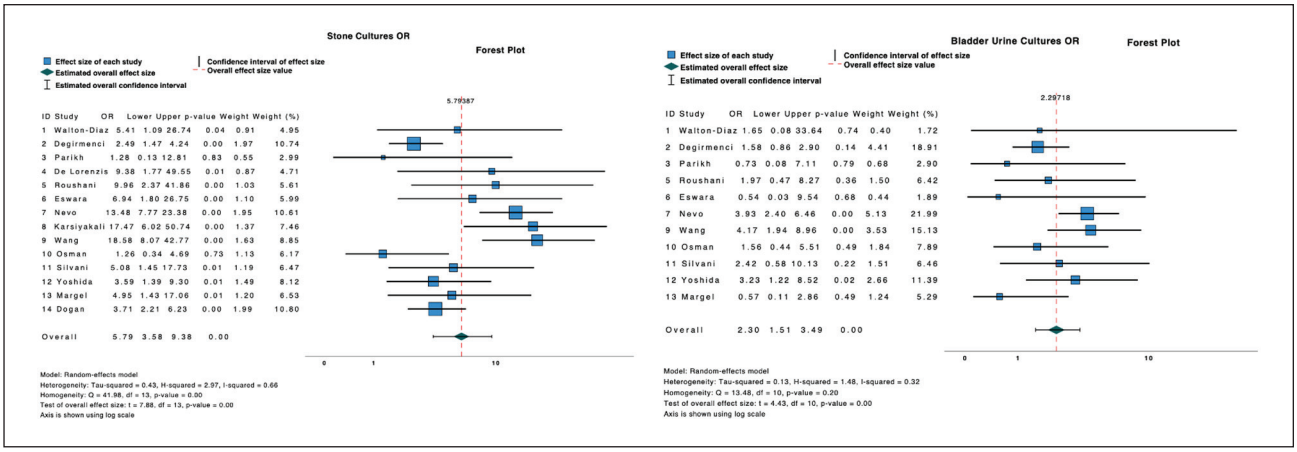
Introduction: Kidney stone disease (KSD) is frequently recurrent with limited preventive and therapeutic strategies. We aimed to ascertain treatment and research priorities in patients with KSD.

Patients and Methods: A 25-question survey was publicised via inpatient and outpatient urology departments in a single centre between April 2023 and January 2024. We collated descriptive statistics and compared participants with a single stone episode to those who had experienced recurrence.

Results: From 44 responses, 63.6% of participants had two or more KSD episodes and 25% had five or more. Median impact on quality of life (0=negligible, 10=severe)



was 7.00/10.00 [IQR 5.00-9.00], with no difference between single and recurrent stone formers (p=0.12). Primary concerns were pain (77.3%), haematuria (63.6%) and anxiety about future episodes (50.0%).

Most respondents (81.8%) felt "likely" or "very likely" to take medication that could reduce the risk of KSD, 56.8% would accept lifelong therapy, while 29.5% would accept a risk of mild side effects. Responses were comparable across single and recurrent stone formers (p=0.80, p=0.97, p=0.95, respectively). Daily dosing was acceptable to 68.2% if risk of recurrence was at least halved. Participants felt that research into KSD was important and should have an emphasis on preventing recurrence, alleviating pain, and slowing stone growth. Almost all respondents (93.2%) expressed readiness for genetic testing to advance KSD treatment research.

Conclusions: KSD affects patients' physical and psychological wellbeing. This study highlights unmet needs in treatment and research within the urological community, offering crucial insights for future interventions.

P8-10 Clinical significance of stone culture during endourological procedures in predicting post-operative urinary sepsis - Should it be a standard of care? Evidence from a systematic review and meta-analysis

Dr Francesco Ripa[1], Clara Cerrato[2], Carlotta Nedbal[2], Zafer Tandogdu[3], Mr Simon Choong[3], Professor Bhaskar Somani[2]

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Introduction: Urinary sepsis is the leading cause of mortality in the setting of endourological procedures for stone treatment such as URS and PCNL; renal stones themselves may be a source of infection. Aim of this study is to determine the diagnostic accuracy of stone cultures (SC) collected during URS and PCNL in predicting post-operative septic complications, compared to preoperative bladder urine culture (BUC).

Materials and Methods: We performed a systematic review (SR) of literature according to the PRISMA guidelines; Literature quality was evaluated according to The Risk Of Bias In Non-randomized Studies – of Interventions (ROBINS-I) assessment tool. A univariate meta-analysis (MA) was used to estimate pooled log odds ratio of BUC and SC, respectively.

Results: Overall, 14 studies including 3646 patients met the inclusion criteria. Eight studies reported data from PCNL only; three from URS only; three from both URS and PCNL. Stone cultures showed a higher sensitivity (0.52 vs 0.32) and higher positive predictive value (0.28 vs 0.21) in predicting post-operative sepsis, compared to bladder urine cultures. The pool-weighted logarithmic odd risk (LOR) for BUC was 2.30 (95% CI 1.51-3.49, $p<0.001$); the LOR for stone cultures (SC) in predicting post-operative sepsis was 5.79 (95% CI 3.58-9.38, $p<0.001$), Figure 1.

Conclusion: The evidence from this SR and MA suggests that intraoperative SC from stone fragments retrieved during endourological procedures are better predictors of the likelihood of occurrence of post-operative sepsis compared to pre-operative BUC. Therefore, SC should be a standard of care in patients undergoing endourological interventions.

ePoster Session 9 Prostate Cancer 1, Wednesday 26 June, 0800-0900, Hall 9

P9-1 Early return to continence, oncological safety and significance of membranous urethral length in anterior Retzius sparing (ARS) robot assisted radical prostatectomy (RARP)

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		ARS n=429	Non-ARS n=79	p-value
Clinical outcomes	Continent at 6 weeks	292/420 (70%)	36/74 (49%)	0.002
	Positive surgical margin	104/429 (25%)	20/79 (25%)	0.75
Pre-operative variables	Age (median yrs)	67	65	0.06
	MUL (median mm)	14	13.8	>0.9
	Prostate volume (median cc)	42	40	0.3
	BMI <25	128/413 (31%)	19/72 (26%)	0.8
	BMI 25-30	198/413 (48%)	35/72 (49%)	
	BMI >30	87/413 (21%)	18/72 (25%)	
	GGG 1	2/315 (1%)	0/59 (0%)	0.5
	GGG 2	209/315 (66%)	37/59 (63%)	
	GGG 3	69/315 (22%)	17/59 (29%)	
	GGG 4	21/315 (7%)	3/59 (5%)	
	GGG 5	14/315 (4%)	2/59 (3%)	
	PIRADS 1	26/390 (7%)	3/68 (4%)	0.4
	PIRADS 3	56/390 (14%)	11/68 (16%)	
	PIRADS 4	157/390 (40%)	17/68 (25%)	
	PIRADS 5	151/390 (39%)	37/68 (54%)	

Table 1: Clinical outcomes and pre-operative variables in ARS and non-ARS cohorts

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Introduction: Anterior Retzius-sparing (ARS) robot-assisted radical prostatectomy (RARP) preserves key structures aligned with urinary continence. We investigated differences in early continence and oncological safety between ARS and standard anterior RARP, alongside pre-operative variables.

Methods: We retrospectively reviewed a prospectively maintained RARP database, comparing ARS to non-ARS standard approach cases. Multiple regression analysis assessed pre-operative variables including membranous urethral length(MUL), age, BMI, MRI-PIRADs score, prostate volume, and biopsy Gleason-grade-group(GGG) on early continence (0-1 pad usage/day at 6-week follow-up) and oncological safety (positive surgical margin (PSM) rate). ROC curve analysis identified MUL cut-offs to predict 6-week continence.

Results: Of 508 RARPs from 14/02/2017-21/08/2023, 429 ARS cases were compared to 79 non-ARS cases. There was no difference in pre-operative variables of MUL, age, BMI, MRI PIRADS, GGG and prostate volume between ARS and non-ARS cohorts.

There was an increase in 6-week continence for ARS compared to non-ARS cohorts (292/420 (70%) vs 36/74 (49%), p=0.002). There was no difference in PSM rate in ARS vs non-ARS cohorts (104/429 (25%) vs 20/79 (25%) p=0.75).

In the ARS cohort, lower age (OR0.92; 95%CI 0.85–0.99) and longer MUL (OR1.22; 95%CI 1.09–1.38) were independently associated with 6-week continence.

ROC curve analysis for MUL identified an 80% sensitivity for 6-week continence for MUL >11.4mm in ARS cohort vs >15mm in the non-ARS cohort.

Conclusions: This study highlights improved early continence in ARS vs non-ARS approaches without impacting oncological safety. Lower age and longer MUL are independent predictive factors for early continence in ARS patients.

P9-2 Cardiovascular and Fracture Risks associated with LHRH analogue treatment and assessing those at risk: A Retrospective Cohort Study

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Introduction: Previous research indicates an elevated risk of cardiovascular side-effects associated with LHRH analogues in prostate cancer treatment. This study aimed to assess cardiovascular risks for a cohort of LHRH analogue-treated patients compared to a control group from the same population and evaluate risk factors for patients who experienced a cardiovascular event using Qrisk3.

Patients & Methods: We conducted a retrospective cohort study over a 10-year period, assessing the cardiovascular risks associated with LHRH analogue treatment. A cohort of 389 patients receiving LHRH analogues was compared to a matched control group of 7,183 individuals from the same local population. The outcomes were MI, stroke/TIA and DVT/PE. For patients in the treatment group experiencing cardiovascular events, we estimated their Qrisk3 score from their clinical notes at diagnosis.
Results: An MI occurred in 5.14% of patients receiving LHRH treatment compared with 1.31% in the control group (p=<0.001, RR 3.92). Incidence was higher in the treatment group for Stroke/TIA; 7.46% compared with 2.67%, (p=<0.001, RR 2.79) and DVT/PE; 4.37% compared with 0.74%% (p=<0.001, RR 5.91). Patients in the treatment group who experienced cardiovascular events had an average Qrisk3 of 30.49%, compared with 21.3% for a matched age male with no co-morbidities.
Conclusions: We demonstrated a high rate of cardiovascular events in prostate cancer patients receiving LHRH treatment. Patients had identifiable risk factors prior to starting treatment and identifying this risk could lead to either deferred hormone treatment or using alternative treatment with a lower risk of cardiovascular side effects, such as LHRH antagonists.

P9-3 Correlation between MRI and Pathological Primary Tumour Staging in T3a Prostate Cancers with Broad Capsular Contact: A Study on 383 Patients

Mr Jonathan Ferguson[1], Dr Jonathan Ferguson[1], Mr Dimitrios Papadopoulos[1], Mr Constantinos Adamou[1], Mr Julian Peacock[1], Mr Torath Ameen[1], Mr Umberto Carbanara[1], Mr Joseph Gabriel[1], Mr Wissam Abou Chedid[1], Mr Venkata Ramana Murthy Kusuma[1], Mr Dimitrios Moschonas[1], Mr James Hicks[1], Mr Krishna Patil[1], Mr Matthew Perry[1]
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Introduction: MpMRI is widely used in the pre-operative staging of prostate cancer. cT3a can be diagnosed in MpMRI based on direct or indirect evidence of extracapsular extension (ECE) such as broad capsular contact (BCC) (>15 mm). We analysed the pathological outcomes of cT3a prostate cancers with BCC.
Methods: We analysed our prospectively maintained robotic prostatectomy database from 2014 to 2022 and included 383 men with cT3a on MRI based solely on BCC. We included data such as tumour volume, prostate volume, ISUP, PSA, Tumour volume%, pathological staging and stage migration in the final histology report. Logistic regression was used to analyse the risk factors for pathological upstaging after radical prostatectomy.
Results: Of the 383 cT3a with BCC, 55% stayed pT3a, 26% became pT2, and 19% upstaged to pT3b. Preoperative PSA level, PI-RADS and ISUP are significantly and positively associated with upstaging. Similarly, tumour volume, % of tumour volume in the prostate, and presence or absence of ISUP upgrade in final histology were significantly associated with pT3 upstaging (P<0.001). Patient factors such as age, BMI, prostate volume and BCC were not associated with stage migration. Capsule contact length >15mm might increase the prediction of positive surgical margins.
Conclusion: This study concludes that in MRI cT3a based on BCC, the tumour volume can be used as a criterion to better predict upstaging in the final histology. This data is from a single high-volume centre and needs to be confirmed by multi-centric studies with a large sample size.

P9-4 ProFocal®- novel, cooled Laser Focal Therapy. Pivotal trial results of 100 men with localised Prostate Cancer

Dr Jonathan Kam[1], Dr Mohan Arianayagam[1], Dr Bertram Canagasingham[1], Dr Ahmed Saeed Goolam[1], Dr Nicola Jeffery[1], Dr Matthew Winter[1], Prof Mohamed Khadra[1], A/Prof Raymond Ko[1], Dr Nicholas Mehan[1], Dr Isaac Thangasamy[1], A/Prof Celi Varol[2], Rick Popert
[1]Nepean Urology Research Group, Sydney, Australia, [2]Medlogical Innovations, Sydney, Australia

Introduction: ProFocal® is a novel, day-only, cooled laser focal ablation treatment for prostate cancer delivered via a transperineal route.
We aimed to report the final oncological outcomes of the first in-human trial of this novel treatment for localised prostate cancer.
Methods: The PFLT-PC (ProFocal Laser Therapy for Prostate Tissue Ablation) trial is a prospective trial evaluating the novel ProFocal® device for localised prostate cancer. Inclusion criteria were PSA ⩽15 ng/ml, stage ⩽T2c, ISUP 2-3, and 1-2 MRI visible lesions concordant with biopsy results. Patients had a 3-month follow-up transperineal prostate biopsy to assess treatment outcomes. Functional outcomes were measured using validated questionnaires (IPSS, SHIM, EPIC, SF-12) at 3, 6 and 12 months. Statistical analysis was performed using SPSS 29.0.
Results: 100 men recruited for this trial. The median age was 66 years (range 49-82), PSA 5.9ng/ml (range 0.7-15), prostate volume 39cc (range 17-170) and MRI lesion volume 0.86cc (range 0.12-10.4).
84% of patients had no evidence of ISUP 2 or greater prostate cancer on their in-field biopsies. Of the patients with infield recurrence, 50% of cases also had ⩾ ISUP 2 disease in their out of field biopsies.
Functional outcomes were excellent with no worsening in quality-of-life scores (SF-12), lower urinary tract symptoms (IPSS, EPIC) or bowel function. There was a minor decrease in sexual function (SHIM and EPIC).

Conclusions: The oncological results from the ProFocal® focal laser ablation trial are promising with 84% of patients having successful infield treatment.

P9-5 The Man Van Project: Subgroup Analysis of Patients From A Single Primary Care Centre

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Introduction: Early intervention is potentially lifesaving in prostate cancer. The Man Van project ran a successful pilot to address inequalities that affect prostate cancer with novel community-based targeting of high-risk groups on a mobile clinical unit. One location was based at a general practice (GP) with text messaging used to invite eligible patients.

Methods: We worked in collaboration with a GP in London with three different sites operating as two practices. Text messages were sent to men aged over 40. The message text was: "You are invited to attend a free men's health prostate check via the Man Van mobile clinic (for men over 45 years old), located at XX. To book an appointment, please complete the booking form at XX. Further info can be found on our webpage at https://www.royalmarsden.nhs.uk/man-van, via email at XX, or via phone on XX".

Results: Our mobile diagnostics unit was located at the primary care facility between 21/04/22 and 11/07/2022 and from 11/08/2022 till 22/08/2022. Total 3295 text messages were sent to men from an eligible population of approximately 4000 men. 301 patients registered (9.1%), with 218 attending.

Table 1 shows GP practice data compared with Man Van data from men seen whilst located at the practice.

Conclusions: The Man Van was able to recruit more Black and Asian men compared with the background population, whilst maintaining the deprivation level. This highlights the importance providing access to patients. The prostate cancer incidence was ten-fold higher in this high-risk demographic compared with the background rate.

	Primary care patients	Man Van patients (n=218)
Proportion White	73.2% (all ages)	48%
Proportion Black	17.1% (all ages)	33%
Proportion Asian	4.2% (all ages)	9% all patients
Average IMD score	35.4 (all ages)	33.98 (median), IQR 18.7-37.9, range 3.1-49.6
IMD Decile	2nd worst (all ages)	2nd worst (all patients)
Obesity prevalence (>18yrs)	11.1%	33.9%
Diabetes prevalence (>17yrs)	7.7%	3% of all attendees
Non-diabetic hyperglycaemia (>18yrs with pre-diabetes)	5.3%	9.63% of all attendees
Hypertension prevalence (all ages)	13.1%	21%
Smoking prevalence (>15yrs)	22.4%	14.2%
Depression incidence (>18yrs)	2.6%	10.3%
Prostate cancer incidence	0.32% (2022 data, for men > 45 yrs)	3.4% (men >45)

Table 1: GP practice data (combined and weighted for populations) and Man Van data for men from the same practice.

P9-6 Development and Internal Validation of a Multivariable Prognostic Model for Mental Wellbeing Outcomes in Prostate Cancer Patients

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[1]King's College London, London, United Kingdom, [2]Queen Elizabeth Hospital, London, United Kingdom, [3]Bedfordshire Hospitals NHS Foundation Trust, Bedford, United Kingdom, [4]East Surrey Hospital, Redhill, United Kingdom, [5]Medway NHS Foundation Trust, Gillingham, United Kingdom, [6]Imperial College London, London, United Kingdom

Introduction: Mental wellbeing is an important outcome when considering prostate cancer quality of life. However, predicting poorer outcomes can be difficult. This study therefore aimed to develop and validate a multivariable prognostic model for multiple mental wellbeing outcomes in prostate cancer.

Patients and Methods: A sample of 300 newly diagnosed prostate cancer patients from the MIND-P study (NCT04647474) was utilised. Five mental wellbeing outcomes (depression, anxiety, fear of recurrence, body image, and masculinity) were defined based on background work. A primary composite wellbeing model was developed, with secondary individual models developed. Candidate variables were defined from previous literature with backward elimination used for model development. Bootstrapping was used to give estimates of model fit, calibration and discrimination.

Results: From 11 potential candidate factors, the final model included age, a previous psychiatric diagnosis, stage of disease, baseline anxiety symptoms, and baseline urinary and sexual function as predictors. The primary model demonstrated acceptable overall performance (Scaled Brier 21.2%), calibration (calibration slope 0.79 and calibration in the large 0.01), and discrimination (C-statistic 0.77) during its internal validation. Individual five mental wellbeing models developed also demonstrated acceptable to good model performance (Scaled Brier 19.0-30.7%), calibration (calibration slope 0.74-0.79) and discrimination (C-statistic 0.78-0.86).

Conclusions: The developed model is the first within prostate cancer focussing on mental wellbeing for patients, offering a method to risk stratify patients to ensure increased screening and preventative measures can be offered to those at highest risk. Further work including external validation studies and assessment of clinical utility is required.

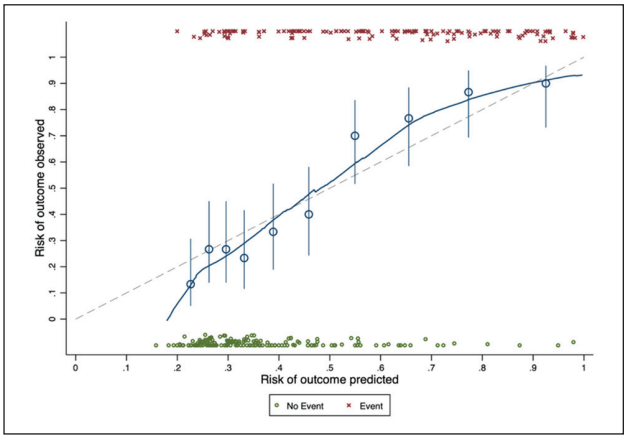

Figure 1. Calibration plot showing smoothed line and observed vs predicted risk for 10 equally sized groups for primary composite mental wellbeing outcome.

P9-7 IDEAL Stage 2 implementation of the Medtronic Hugo Robotic-Assisted Surgery (RAS) in radical prostatectomy: Comparative study from the first UK centre

Mr Mehrshad Sultani Tehrani[1], Mr Andrew Shepherd[2], Mr Angus Bruce[2], Mr Daniel Chia[2], Mr Findlay MacAskill[3], Mr Christian Brown[2], Mr Jonathan Noel[2], Mr Ata Jaffer[2], Mr Prokar Dasgupta[2], Mr Ben Challacombe[2]

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Introduction: We describe the implementation of the UK's first Hugo system, comparing outcomes in radical prostatectomy with the conventional da Vinci surgical system at our high-volume robotic centre, evaluating surgical outcomes and continued safety.

Methods: Patients undergoing primary Hugo Robotic Assisted Radical Prostatectomy (RARP) were enrolled between February and December 2023, with a propensity-matched analysis (using age, prostate volume and BMI) of contemporary da Vinci patients for comparison.
The primary objective was equivalent peri-operative and oncological outcomes as well as sustained safety parameters between the robotic systems.

Results: 34 patients underwent RARP using the Hugo system. Mean age was 62 years (range 50-73), BMI 27.6 (22-35), pre-operative PSA 13.7 ng/mL (3.8-53) and prostate volume 40.6mL (20-160). No conversions to open, laparoscopy or another robotic system occurred.
Mean console time was 143 minutes (90-195), estimated blood loss (EBL) 163mL (50-650) and median length of stay 2 days (1-6). There were 4 positive margins (12%), 33 patients had a Gleason score $\geqslant$ 7, six having a score $\geqslant$ 8. Four temporary device failures and 2 Clavien-Dindo 3a complications (drain insertion) occurred in the initial cases. Functional outcomes are awaited.
33 matched da Vinci cases had non significantly different peri-operative outcomes; mean console time of 145 minutes (90-210), EBL of 188mL (50-900), and 3 positive margins (9%).

Conclusions: The Hugo RAS device has comparable peri-operative and oncological outcomes to the da Vinci system with an initial learning curve. Medtronic's Hugo is an effective and safe alternative to current robotic platforms for RARP.

P9-8 Morphine, Naloxone and Beta-endorphin inhibit the proliferation of PC3, LNCaP and a benign prostate cell line and inhibit TNF-Alpha-induced release of IL-6, IL-8 and IL-1Beta in vitro: Clinical significance in prostate cancer management?

Miss Prapussara Sirikhansaeng[1], Muhammadbakhoree Yusuh[1], Laurie Lau[2], Omar Abdelwahab[1], Associate Professor Brian Birch[3], Professor Bashir Lwaleed[1]

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Introduction: Pro-inflammatory mediators such as the cytokines IL-1β, IL-6 and IL-8 appear to be involved in PCa survival, inflammation and progression.
Previous studies have described opiates as possibly increasing the risk of progression and metastases in PCa.
We examined the effects of the opiates morphine, naloxone, and β-endorphin on

1. the proliferation of 3 prostate cell lines.
2. TNF-α-induced expression of proinflammatory cytokines

Methods: 1. Cell proliferation
Cytotoxicity was assessed using an MTT assay
LNCaP, PC3 cell lines and a primary benign prostate cell line were treated with Morphine, naloxone, naloxone + morphine, and β-endorphin for varying incubation periods
2. Cytokine release
PC3 and LNCaP cells were challenged with TNF-α with/without pre-treatment with morphine, naloxone and β-endorphin and the resultant expression of IL-1β, IL-6 and IL-8 assessed using an ELISA assay.
Results: 1. Cell proliferation
Both morphine and naloxone as well as β-endorphin exerted significant cytotoxic effects on LNCaP and PC3 cells but had no effect on the primary benign prostate cell (Figure 1A-1B)
2. Cytokine release
TNF-α alone induced significant increases in IL-1β, IL-6 and IL-8 release from both LNCaP and PC3 cells.
This release was significantly inhibited by pretreatment of the cells with both morphine, naloxone and β-endorphin (shown for IL-6 in Figure 1C).
Conclusions: The current study provides evidence:

1. That the use of opioids in PCa management is without oncological detriment and
2. to support a possible positive role for their adjuvant use in PCa management strategies e.g. exercise which increases levels of β-endorphin.

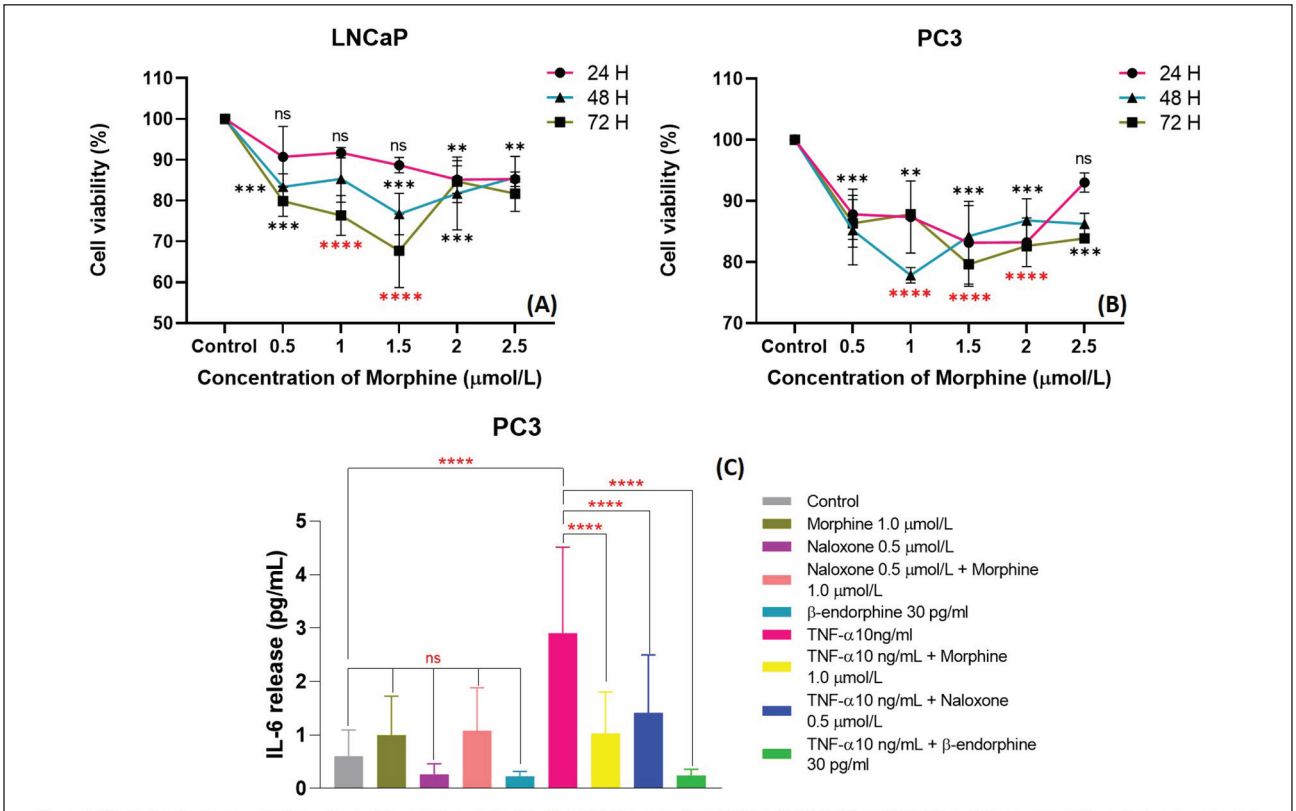

Figure 1 Effect of various concentrations of morphine treatments for 24, 48, and 72 hours on the viability of LNCaP (A) and PC3 (B) prostate cancer cell lines. Data are expressed as means ± SEM. ns = *P>0.05*, * = *P<0.05*, ** = *P<0.01*, *** = *P<0.001* and **** = *P<0.0001* compared to control cultures. (C) The effect of morphine on the PC3 cell release of IL-6 upon 24-hours of incubation with TNF-α. Data are expressed as means ± SEM. ns = *P>0.05* and **** = *P<0.0001* compared to control and TNF-α treatment.

P9-9 Empowering local communities: The "ThisVanCan" Experience. An awareness campaign and mobile case finding project for black men and other high-risk individuals for developing prostate cancer

Mr Harry Alexander Rudman[1], Ms Hannah Leather[1], Ms Millie Wadley[1], Mr Sotonye Karl Tolofari[1]
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Introduction: Black men are twice as likely to develop prostate cancer, but historically less likely to engage with healthcare services. Reasons behind this are multifactorial and poorly understood. ThisVanCan is a community awareness campaign and innovative mobile case finding project aimed at black men and other individuals with increased risk of developing prostate cancer.
Patients & Methods: Between May and October 2023, a mobile unit toured Greater Manchester, offering consultations to black men >45 years and men with significant family history of prostate, breast or ovarian cancer. A multifaceted media campaign included promotion via primary care networks, social media engagement and appearances on national broadcast media.
Results: 630 men attended with 550 proceeding to PSA tests (372 black men, 178 family history). Median age was 57yrs (45-80). PSA was elevated in 8.8% of black men leading to nine prostate cancer diagnoses (2.4% diagnosis rate; 1.9% CPG2 or higher). PSA was elevated in 5.1% of men with family history, with four cancer diagnoses (2.2% diagnosis rate, 1.7% CPG2 or higher). During the project we recorded 10,000 visits to our webpage and over 4,000,000 social media impressions.
Conclusions: ThisVanCan provided accessible PSA testing for men in at-risk groups, with excellent feedback (91.9% overall experience 9/10). We observed comparative rates of prostate cancer diagnosis (overall 2.4%) and comparatively high rates of clinically significant disease (overall 1.8% CPG2 or higher) to other series. A significant legacy remains regarding awareness for groups of at-risk men within the local community, empowering them to seek healthcare advice.

P9-10 Omentoplasty improves anastamotic leak rate and post operative catheter dwell time after salvage robotic prostatectomy

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[1]UCL, London, United Kingdom

Introduction: Salvage robotic prostatectomy after previous radiotherapy treatment is associated with worse functional outcomes with a higher rate of anastomotic leak rates leading to prolonged post-operative indwelling catheter time and possible inferior early continence outcomes. We evaluated a novel surgical technique to perform a bladder neck omentoplasty.
Methods: Consecutive patients undergoing salvage robotic prostatectomy post-primary radiation treatment only for biopsy-proven prostate cancer were included between 2014 and 2023. Omentoplasty was performed on the ten most recent cases and peri- and postoperative outcomes were prospectively collected on these cases. The primary outcomes was duration of catheter dwell time.
Results: 44 patients had standard sRARP, while 10 had omentoplasty sRARP. Age was similar between both groups (68years for standard sRARP vs 67years for omentoplasty). Operative time was comparable between the two groups, with a mean of 159 minutes for the standard sRARP group and 135 minutes for the omentoplasty group. The primary outcome, mean days until successful TWOC, was 63.61 days in the standard sRARP group and 19.3 days in the omentoplasty group (p-value <0.05). The omentoplasty group used fewer pads on average at 3 months. There was a lower rate of anastomotic leak after omentoplasty compared to without.
Conclusions: Omentoplasty around the vesicourethral anastamosis can improve healing around the bladder neck after salvage robotic prostatectomy post-radiation therapy and reduces the time required for a catheter to be in-situ post-operatively and also improves early continence recovery. This novel technique should be considered for all patients undergoing salvage robotic prostatectomy post-radiation therapy.

ePoster Session 10 TUF-BAUS Best of the Regions, Wednesday 26 June, 0800-0930, Hall 10

P10-1 Creating a decision aid for prostate cancer diagnostics using local data

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Background: There are a number of aids currently available to assist decision making for prostate cancer diagnostics, one example being the Rotterdam Prostate Cancer Risk Calculator (RPCRC). However, these aids do not use local data and therefore may not be representative of the populations we work in. Our aim was to create a decision aid for our trust and for the wider Southwest using local data to identify men at higher risk of clinically significant prostate cancer who would benefit from early prostate cancer detection and subsequent treatment.
Method: We created 2 tools using data from the Southwest prostate cancer dashboard. The first tool was based on 1644 patients seen in our local trust while the second tool was based on 20093 2 week wait patients seen in 13 hospitals across the Southwest since 2021.
Results: The decision aid allows the clinician to enter their patients age, PSA and MRI results and the tool then

gives a percentage risk of detecting cancer and of these the percentage that are clinically significant (grade group >2) and high risk (grade group >4).
Conclusion: We propose further development and validation of the tool so trusts in the Southwest can use this aid based on local data to assist decision making for prostate cancer diagnostics in 2 week wait prostate cancer clinics.

P10-2 Regional disparities in BOO surgical management in 2023: a pilot study

Dr Edward Armstrong[1], Mr Richard Menzies-Wilson, Professor Ben Turney
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Introduction: Surgical management of bladder outlet obstruction (BOO) is a cornerstone of urological practice. Geographical disparities are well recognised as a cause of health inequality. This pilot study aimed to quantify differences in BOO surgical volume between NHS regions.
Methods: Data on the number of BOO surgical procedures performed in 2023, stratified by region, was obtained using NHS Hospital Episode Statistics. Population data was obtained from the Office of National Statistics mid-2022 population estimates. Data on tamsulosin and finasteride prescribing was obtained from Open Prescribing. Surgical and prescribing volume was calculated per 100,000 males over the age of 50 for each NHS region.
Results: There was considerable disparity in total BOO surgical volume, ranging from 338 procedures/ year/ 100,000 males over the age of 50 (Midlands) to 780 (London). Transurethral resection of prostate (TURP) remained the highest volume procedure across all regions and had the lowest relative regional variability (coefficient of variation 0.22). The greatest variation was seen in laser prostatectomy volume (coefficient of variation 0.8), where Midlands, North West and South West had substantially lower volume than other regions (Figure 1). There did not appear to be any correlation between surgical volume and tamsulosin/ finasteride prescribing rates.

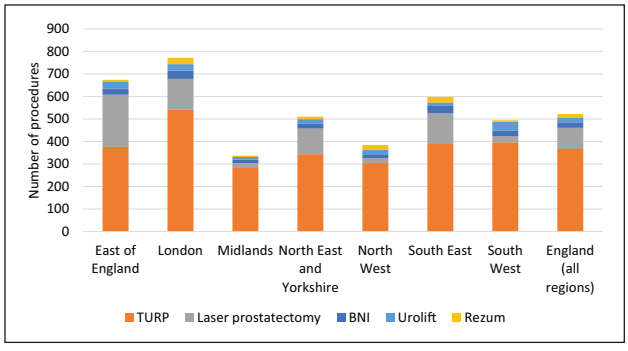

Figure 1. BOO procedures/ year/ 100,000 males over the age of 50 by region BNI, Bladder neck incision; TURP, Transurethral resection of prostate.

Conclusions: These results show considerable disparity in laser prostatectomy volume across NHS regions which may suggest a disparity in access for patients.

P10-3 Malignancy Rate of Bosniak 3 and 4 Complex Renal Cystic Lesions

Mr Abhishek Reekhaye[1], Kathryn Brown[1], Joanne Oakley[1], Harbinder Sharma[1], Amr Emara[1], Manar Malki[1], Neil Barber[1], Muddassar Hussain[1]
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Introduction: The purpose of this study was to determine the malignancy rate of surgically treated complex renal cysts classified as Bosniak 3 or 4 in our regional renal cancer centre.
Materials and Methods: We searched our database for cystic lesions classified as Bosniak 3 or 4. Surgically resected lesions were correlated with histology reports to obtain malignancy rates.
Results: A total of 1018 radical and 1267 partial nephrectomies have been carried out in our institution 2005. We included 63 Bosniak 3 and 4 lesions which were surgically resected in the final analysis. The vast majority of those lesions (51 out of 63) were resected with a robotically-assisted partial nephrectomy (81%) with a median length of stay of 1 night. Of the 51 patients who underwent robotic-assisted surgery, intra-operative cyst rupture occurred in only 3 cases. The positive surgical margin rate was 2%. Clavien-Dindo >2 post-operative complication rate was 2%. 60 lesions were malignant and 3 were benign. Malignancy rates were 100% for Bosniak 3 lesions and 94% for Bosniak 4 lesions. Most malignant cysts were early-stage pT1 cysts. Clear cell RCC was the most prevalent tumour type followed by papillary RCC.
Conclusion: Our study demonstrated much higher prevalence of malignancy (100%) in radiologically detected Bosniak 3 cysts than described in the literature. The findings highlight the importance of surgical resection as a primary treatment option in Bosniak 3 lesions. Robotic-assisted partial nephrectomy for complex renal cystic lesions can be safely and effectively performed in centres with significant robotic expertise.

P10-4 Robotic Assisted Partial Nephrectomy - A Belfast Experience

Mr Andrew Carlile, Ms Aisling Devine, Mr David Curry
[1]Belfast City Hospital, Belfast, United Kingdom

Background: Partial nephrectomy has Become the gold standard for treatment of T1 renal masses.
Objectives: Here we report our outcomes for the first 100 cases performed in Northern Ireland.
Methods: This was a Prospective Audit of a Single surgeon between July 2021 and August 2023.Data including operative times, blood loss, length of stay and complications was

Parameter	Value	Rationale
Border	Uniform, well defined lesion border	Increased chance of favourable tissue planes for dissection of lesion
Size (maximal)	≤5cm maximal diameter	Difficult to create space to safely dissect larger lesions. Allows access to cranial vessels and lymphatics for safe dissection and preservation.
Area/region (paracaval; inter-aortic; para aortic)	≤2 involved	Allows for an initial dissection in an non-diseased area to create a 'safe edge' to develop into affected tissue.
FDG/Marker	Negative PET/biochemistry	Oncological requirements for RPLND.
Effacement (great vessel)	<50% contact with great vessels	Reduced risk of great vessel injury and subsequent haemorrhage

collected. Results were compared to the BAUS robotic surgery curriculum and Scottish cancer task force Trifecta.
Results: All our outcomes were below the targets set by BAUS and we achieved Trifecta in 84% of cases.
Conclusions: Partial Nephrectomy appears to be a safe management option or Small renal masses, with good surgical outcomes and minimal complications.

P10-5 The impact of a new primary ureteroscopy service for the emergency treatment of ureteric stones in a busy university hospital

Ms Maryam Rasheed[1], Mr Tarek Aly, Mr Khaled Ghanem, Dr Kevin George, Dr Mazharuddin Shaikh, Mr Junaid Masood
[1]Barking, Havering and Redbridge University Hospitals, Romford, United Kingdom

Introduction: Patients with ureteric colic are generally treated with either a double J stent to await definitive surgery or managed conservatively. Few units are offering emergency ESWL orureteroscopy. We recently introduced an emergency primary ureteroscopy service and we assess the impact on our service
Methods: A retrospective analysis was conducted to identify patients presenting to A/E between May 2022 – May 2023 with ureteric colic. Patients were categorized based on treatment: conservative, emergency stent insertion, primary ureteroscopy. Patients requiring emergency nephrostomies were excluded.
Results: 404 (288 male, 116 female) patients were identified.
265 patients managed conservatively, 195 passed their stones. There were 13 readmissions (9 stented, 1 ESWL, 1 ureterosocpy on CEPOD, 1 passed stone, 1 DNA follow-up). 6 patients seen in outpatients were listed for ureteroscopy, 2 for ESWL, 1 died awaiting ureteroscopy. Follow-up data in 6 was unclear. 42 patients still awaiting follow up.
95 patients stented on CEPOD. 41% waited up to 3 months, 33% waited between 3 months and 10 months for ureteroscopy. 21% were still on the waiting list. 3% went private.
44 patients underwent successful emergency ureteroscopy, 1 readmission with sepsis.
Conclusion: This early analysis of a new service indicates that emergency primary ureteroscopy is safe and effective in the management of ureteric stones. It reduces the wait for definitive surgery, reduces reattendance to A/E and hence improves patients quality of life and has a low complication rate. We will look to audit the second year as numbers rise significantly.

P10-6 Outcomes of men undergoing surgery for Gleason 8-10 prostate cancer: A UK tertiary centre experience

Miss Stephanie Smith[1], Miss Kate Manley[1], Mr Rob Mills[1]
[1]Norfolk And Norwich University Hospitals, Norwich, United Kingdom

Background: We evaluated patient outcomes at our tertiary referral unit for patients with localised Gleason 8-10 prostate cancer opting for radical prostatectomy. We aimed to provide an up-to-date insight on prostate cancer surgical survival data relevant to a UK-based NHS practice.
Methods: Men with Gleason 8-10 localised prostate cancer on pre-operative prostate biopsy who underwent radical prostatectomy (RP) within our unit between 1st January 2002 and 2nd June 2020 were included in this retrospective single-centre study. Electronic patient record systems were retrospectively reviewed for demographic

information, pre-op PSA, biopsy histology, clinical staging, type of prostatectomy, final histology and post-operative information. Survival curves were generated using the Kaplan-Meier estimation method.
Results: 102 patients with Gleason 8-10 disease underwent radical prostatectomy, with mean follow-up period of 8.4 years. Mean (± SD) age at operation was 64.3 ± 6.1 years. Mean PSA at diagnosis was 10.1 ng/ml. Prostate biopsies revealed Gleason 9 disease in 55.9%, Gleason 8 in 39.2% and Gleason 10 in 4.9%. 48% of RP were robot-assisted, 28% laparoscopic and the remainder open. Overall survival was 93.4% at 5 years, and 82.5% at 10 years. Biochemical recurrence free survival was 52.9% at 5 years, and 35% at 10 years. Metastasis-free survival was 85.3% at 5 years, and 63.8% at 10 years.
Conclusions: We report a single-centre series of Gleason 8-10 patients undergoing radical prostatectomy in a UK NHS setting. Our findings will help guide pre-operative counselling and improve the informed decision-making process for men with newly-diagnosed localised, high-risk prostate cancer.

P10-7 Is there a need for flexible cystoscopies in patients with recurrent Urinary Tract Infections?

Mr Anton Wong[1], Miss Beverly James[1], Miss Anna Mainwaring[1], Mr Pradeep Bose[1], Mr Gokul Kandaswamy[1]
[1]Swansea Bay Hospitals, Swansea, United Kingdom

Introduction: Increasing number of patients are being referred to secondary care with recurrent urinary tract infections (UTIs). The role of flexible cystoscopy in patients with recurrent UTIs is controversial. The main aim of the study was to assess the risk of bladder cancer and any other significant non-malignant pathology detected on flexible cystoscopy.
Patients and Methods: Records of patients who had a flexible cystoscopy performed for a UTI or recurrent UTIs during the 45-month period from April 2019 to January 2023 were assessed retrospectively. A total of 300 patients were identified. The outcomes and pathologies for these patients were noted.
Results: Not a single patient was found to have bladder cancer. 173 (57%) had normal examination and were discharged. Red areas were detected in 10 (3.4%) patients which were found to be benign on biopsy. We also found a discrepancy in the management of bladder pathologies such as red areas, cystitis cystica and squamous metaplasia.
Conclusion: We found the incidence of detecting a bladder tumour to be extremely low (0%). We conclude that a flexible cystoscopy is not routinely required for patients with recurrent UTIs. We advocate that these patients be counselled and managed in primary care or have a dedicated CNS led UTI clinic. Furthermore, there should be a standardised approach when managing patients who have found to have specific bladder abnormalities.

P10-8 Scrub team-led theatre fluoroscopy radiation: ALARA? An update

Miss Feng Tse[1], Mrs Sharon Scriven, Mr Dhaval Bodiwala, Mr Hari Ratan, Mr Stephen Miller, Miss Susan Hall, Mr Jerry Raju
[1]Nottingham City Hospital, Nottingham, United Kingdom

Introduction: ALARA principles dictate that radiation doses should be kept "as low as reasonably achievable". Our previous audit has demonstrated reduced radiation doses for endourology procedures using our dedicated scrub team-led fluoroscopy service in urology theatres (UT), compared to the national reference levels set by the FLASH study. Here, we re-audited fluoroscopy usage in urology theatres and compared against that in emergency theatres (ET), which utilises radiographer-led fluoroscopy.
Methods: Retrospective analysis of ureteroscopy (URS) and stent procedures performed in UT (n = 44) and ET (n = 36) over a 3-month period. Radiation exposure was defined using total fluoroscopy time (FT) in seconds, and dose area product (DAP) in Gy·cm2.
Results: Lower median fluoroscopy usage was seen in both UT and ET compared to the FLASH Study national reference levels.
Median urology theatre FT and DAP remained lower for both URS [23 vs 57 seconds, 0.89 vs 2.80 Gy·cm2] and stent [8 vs 49 seconds, 0.49 vs 2.00 Gy·cm2] procedures compared to reference levels.
Radiographer-led fluoroscopy in ET resulted in higher FT and DAP for stent only procedures compared to UT [18 vs 8 seconds and 0.65 vs 0.49 Gy·cm2 respectively]. However, DAP was lower for URS performed in ET compared to UT [0.59 vs 0.89 Gy·cm2]. Hot URS is only performed for small, distal stones in ET within our hospital, and may account for this finding.
Conclusions: Our scrub team-led fluoroscopy service continues to provide reduced radiation doses for endourology cases compared to radiographer-led fluoroscopy and national reference ranges.

P10-9 Cardiovascular and Fracture Risks associated with LHRH analogue treatment and assessing those at risk: A Retrospective Cohort Study

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Introduction: Previous research indicates an elevated risk of cardiovascular side effects associated with LHRH analogues in prostate cancer treatment. This study aimed to assess cardiovascular risks for a cohort of LHRH

analogue-treated patients compared to a matched-age group from the same population and evaluate risk factors for patients who experienced a cardiovascular event using the Qrisk3 score.

Patients & Methods: We conducted a retrospective cohort study over a 10-year period, assessing the cardiovascular risks associated with LHRH analogue treatment. A cohort of 389 patients receiving LHRH analogues was compared to a matched-age group of 7,183 individuals from the same local population. The outcomes were MI, stroke/TIA and DVT/PE. For patients in the treatment group experiencing cardiovascular events, we estimated their Qrisk3 score at diagnosis.

Results: An MI occurred in 5.14% of patients receiving LHRH treatment compared with 1.31% in the matched-age group ($p=<0.001$, RR 3.92). Incidence was higher in the treatment group for stroke/TIA; 7.46% compared with 2.67%, ($p=<0.001$, RR 2.79) and DVT/PE; 4.37% compared with 0.74%% ($p=<0.001$, RR 5.91). Patients in the treatment group who experienced cardiovascular events had an average Qrisk3 score of 30.49%, compared with 21.3% for a matched-age male with no co-morbidities.

Conclusions: We demonstrated a high rate of cardiovascular events in prostate cancer patients receiving LHRH treatment. Patients had identifiable risk factors prior to starting treatment and identifying this risk could lead to either deferred hormone treatment or using an alternative treatment with a lower risk of cardiovascular side effects, such as LHRH antagonists.

P10-10 Real word high-risk non-muscle invasive bladder cancer: Long-term outcomes from a consecutive cohort screened for the BRAVO randomised feasibility trial of radical cystectomy versus intravesical BCG immunotherapy

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Introduction: High-risk non-muscle invasive bladder cancer(HRNMIBC) is a difficult disease to manage. Treatments include Bacillus Calmette-Guérin immunotherapy(BCG) and Radical Cystectomy(RC). Randomised comparisons of these options have not been possible, but real-world outcome review can allow for meaningful comparisons.

Patients/Methods We report outcomes from consecutive participants screened for the BRAVO trial [ISRCTN12509361]. Demographics and randomisation status were retrieved from screening logs. Retrospective case review established clinical outcomes. Primary outcome was overall survival(OS). Secondary outcomes included recurrence, progression, metastasis, and cancer-specific mortality. Univariable and multivariable survival analyses were performed using Cox regression to explore the impact of patient, tumour, and treatment factors on outcomes. Significance was defined as $p<0.05$.

Results: The eligible screened population included 193 patients. In total, 106(54.9%) received BCG, 43(22.3%) underwent primary RC, 37(19.2%) received 'other' treatment and 7(3.6%) hyperthermic intravesical mitomycin. Death occurred in 55(28.5%) patients (median 29.0(IQR: 19.5-42.0) months). In multivariable analysis, overall mortality was more common in patients ⩾71 yrs (OR: 2.63(1.35-5.13), p=0.004), those initially recruited from district hospitals (OR: 0.53(0.3-0.95), p=0.032) and those who did not undergo RC as first treatment (OR: 2.16(1.17-3.99), p=0.014). Only 17(8.8%) patients died from BC (median 22.5(IQR: 19-36.25) months). BC-specific mortality was more common in patients ⩾71yrs (OR: 4.87(1.1-21.6), p=0.037) and in pTis/T1 disease (OR: 2.26(1.23-4.16), p=0.008), but did not vary with initial treatment.

Conclusions: Patients with HRNMIBC are at high-risk of all-cause mortality. Those undergoing RC as their initial treatment had better OS, which may reflect selection bias. The CSM risk was low, but increased in older patients (⩾71yrs).

P10-12 Scottish National Complex Renal Cyst Surveillance Protocol

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Introduction: Aim to design and test a suitable risk targeted imaging protocol for follow-up of complex renal cysts categorised IIF.

Patients and Methods: The Scottish Protocol was designed at a joint meeting with the Scottish Urological and Scottish Radiological society according to published data on imaging modality, classification criteria and interval progression of Bosniak IIF renal cysts. Patients were listed prospectively across 5 Scottish NHS health boards.

Patient data accessed between Aug21-Feb22. All patients with a confirmed Bosniak IIF cyst on CT/MRI after MDT review were included. Patients were reviewed according to progression, interval, treatment and histology.
Results: 160 patients identified with Bosniak IIF cysts. 98 (61%) male (age range:29-97, median:67, IQR:57-75). 34 patients completed the proposed 4 year follow up. 17 patients advanced to treatment, with 15 confirmed malignancies (9.4% of database). Mean time from diagnosis to intervention was 1 year and 2 months (range:34-1172 days). None developed metastatic disease.
Conclusions: The Scottish Complex Renal Cyst Protocol provides a risk targeted imaging framework that reliably identifies patients with progressive lesions prior to the development of advanced disease. Incidence of progression is consistent with published data of 9.4% most commonly within 2 years, and not beyond 4 years of surveillance.

P10-13 Is there a geographical incidence variation in upper urinary tract urothelial carcinoma in the Highlands and Islands?

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Background: Upper urinary tract urothelial carcinoma (UTUC) is uncommon; 5% of all urothelial tumours are in the upper tracts. Incidence varies worldwide but in Europe annual incidence is quoted as around 2/100,000. Anecdotal evidence suggested a higher rate of UTUC in patients from the Western Isles (WI) compared to the Mainland and Inner Hebrides (ML), prompting this evaluation.
Methods: A prospectively collected database was populated from December 2004 to March 2023 with details of all patients undergoing nephroureterectomy for UTUC. Further information was added to the data set retrospectively through accessing electronic records. Metrics collected included age at time of surgery, gender, smoking status and postcode.
Results: 95 patients were identified; 67.4% male, 32.6% female. Median age at operation was 72 years (range 47-89). 20% of patients lived in WI and 80% lived in ML.
Incidence for UTUC in the Western Isles was 3.76/100,000 per year vs 1.72 in mainland, p=0.003. Other metrics of the two groups (gender, age at operation, SIMD and smoking status) were not significantly different. Grade and stage of disease was similar between the two groups.
Conclusion: There is a significant difference in incidence of UTUC between locations. The public health team has been contacted and further investigations are ongoing to establish UTUC risk factors in both groups of patients, particularly relating to occupation. Work is ongoing to update guidelines, for example to lower the threshold for CT urogram in patients presenting with haematuria from the Western Isles.

P10-14 Robotic Assisted Retroperitoneal Lymph Node Dissection : Defining Selection Parameters and Assessment of Morbidity and Short-Term Oncological Outcomes: A B-SAFE approach

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Introduction: This study presents our experience with robot-assisted retroperitoneal lymph node dissection (RRPLND) for metastatic testicular cancer. The aim is to define selection parameters for RRPLND and evaluate the outcomes and morbidity from cases selected via this method.
Methods: Records of all patients undergoing RRPLND from 2017–2023 were retrospectively reviewed via a prospectively maintained database. Criteria for robotic case selection are detailed in the attached table. The safety profile of RRPLND was assessed via review of functional, oncological and surgical outcomes.
Results: 57 patients underwent RRPLND (median age of 31). The supine approach was used in 91% of cases. No cases required open conversion. Positive margin rate was 5.2%. Median length of stay was 2 days (1-5). Overall complication rate was 15.7%. No in field recurrences have been seen at a median follow up of 25 months (1-81). Comparison to our simultaneous open RPLND cohort (n=26) revealed a lower LOS (2 vs 6 [p=<0.05]) and bloods loss (130 vs 750[p=<0.05]) for RRPLND. Nodal yield was higher in RRPLND (23 vs 10[p=<0.05]). No significant difference was seen in operation time (4.5 vs 4.3 [p=0.53]), positive margins (5.2 vs 15% [p=0.4]) or complication rates (15.7 vs 15% [p=0.46]).
Conclusions: We propose six parameters that can be used to appropriately select cases for RRPLND which we have defined using the 'B-SAFE' system (border; size; area/region; FDG/marker; effacement). Our results using this framework are encouraging, with no instances of open conversion, excellent short-term oncological outcomes and no compromise in terms of peri-operative morbidity.

P10-15 Characterisation of iatrogenic human ureteral injury due to contact from the Ho:YAG laser at commonly used lithotripsy settings

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Introduction: Modern endourology relies on Ho:YAG laser for definitive management of urolithiasis. Current safety data is drawn predominantly from Ho:YAG laser testing in animal tissue. We aim to evaluate and characterise the grades of iatrogenic human ureteral injury due to contact from Ho:YAG laser at commonly used lithotripsy settings.

Methods: Human ureter was collected from consenting adults at the time of radical nephrectomy. A custom rig was developed to allow a 273micron laser fibre was secured to contact the urothelium for periods of 5, 10 and 20 seconds. Testing settings used included 8Hertz (Hz) and 800millijoules (mJ), 10Hz/1000mJ, and 5Hz/1500mJ. Grades of ureteric injury were then characterised with histopathology

Results: A total of 31 specimens were tested and the mean specimen thickness was 2.2mm (range 0.9-3.1mm).The depth of laser-related injury ranged from urothelium to full thickness perforation at all settings depending on the duration of laser to tissue contact and specimen thickness. No full thickness perforation was seen in specimens $\geqslant$3mm, even at 20 seconds of contact duration at 10Hz/1000mJ. However, in specimens $<$1mm the level of injury depth ranged from urothelium to full thickness perforation at 5 seconds of testing.

Discussion: Ho:YAG laser causes variable level of injury, with both superficial and extensive injury noted. The thickness of the ureter may determine the extent of trauma following laser contact. Concerningly, full thickness ureter perforation may occur with commonly used laser settings at short contact durations.

ePoster Session 11 General Urology, Wednesday 26 June, 0800-0900, Hall 11A

P11-1 Efficacy of different surgical treatment modalities for radiation cystitis- lessons from 7 years of a specialist radiation cystitis service

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Introduction: Macroscopic haematuria from radiation cystitis as a sequalae of radiation therapy is often a challenging condition to manage. Treatments are often unsuccessful in resolving haematuria long-term and patients often require multiple treatments over time.

We aimed to determine the efficacy of the various treatment options for radiation cystitis in patients presenting to our specialist radiation cystitis service.

Patients and Methods: We analysed our prospectively maintained specialist radiation cystitis clinic database for patients treated at our centre between January 2016-July 2023. Data was analysed using SPSS-29.

Results: 183 patients were identified for analysis. 143 (78%) were Male with a median age of 72 (Range 28-96). The mean time from radiation treatment to symptoms of genitourinary toxicity was 3 years (Range $<$1 to 17). The primary diagnosis for radiation treatment were bladder cancer-5%, prostate cancer-72%, colorectal cancer-2%, cervical cancer-16% and endometrial cancer-4%.

85 patients underwent intervention for macroscopic haematuria within our service. Patients often required multiple interventions including blood transfusions (28%), cystodiathermy (45%), Holmium laser ablation (39%), Hyperbaric oxygen therapy (18%), Angioembolisation (12%) and Salvage cystectomy (36%).

Success rates in resolving macroscopic haematuria endoscopically was higher for Holmium laser ablation (70%) compared to cystodiathermy (53%). In cases where previous cystodiathermy had failed, further holmium laser ablation was able to provide haematuria resolution in 61% of cases.

Conclusions: Haematuria secondary to radiation cystitis is a difficult condition to manage, often requiring multiple treatments before resolution. Endoscopic treatment via Holmium laser ablation appears to be more efficacious than cystodiathermy for resolving haematuria.

P11-2 Life expectancy in patients undergoing renal tract decompression for extramural ureteric obstruction is lower than those managed conservatively. Such patients require thorough counselling regarding their options and palliative care should be strongly considered

Dr Tom Pugh[1], **Mr Amit Mevcha**[1]
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Introduction: Renal tract decompression is often performed for individuals with extramural malignant ureteric obstruction (MUO), aiming to prolong life or facilitate further treatment. However, anecdotal evidence suggests these individuals have poor outcomes relating to survival, improvement in renal function and rates of further treatment.
Patients: Patients who were referred in 2019/20 for MUO were included, regardless of primary malignancy or degree of renal impairment.
Methods: Data were analysed from 37 patients referred. Patients were stratified based on primary malignancy and reason for referral (AKI vs hydronephrosis). 26/37 patients underwent intervention with 11/37 managed conservatively. Survival, renal function, hyperkalaemia and further treatment data were compared in relation to primary malignancy.
Results: Median life expectancy was lower in the intervention group vs control (99 vs 175 days) with worse outcomes in non-urological cancers. Individuals referred with hydronephrosis alone had better outcomes than those with normokalaemic renal failure (hyperkalaemia showed increased survival vs normokalaemia). 50% of patients undergoing intervention did not survive for >100 days, with only 27% of those in the intervention group proceeding to further treatment.
Conclusions: Our data show that those undergoing intervention for MUO have worse outcomes than those managed conservatively (especially in non-urological primaries), with only a minority receiving further treatment. Renal failure is a predictor of worse outcomes. This demonstrates that MUO is a sign of end stage disease and, given the anecdotal relative positives of a death from progressive renal failure, palliative care rather than intervention should be strongly considered in these patients.

P11-3 Gram Negative Bacteria related Urinary Tract Infections: spectrum of antimicrobial resistance over 9 years in a University tertiary referral Hospital

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Introduction: Overuse of antibiotics has led to an increase in antimicrobial resistance (AMR) worldwide, with a negative impact on the health care system and the

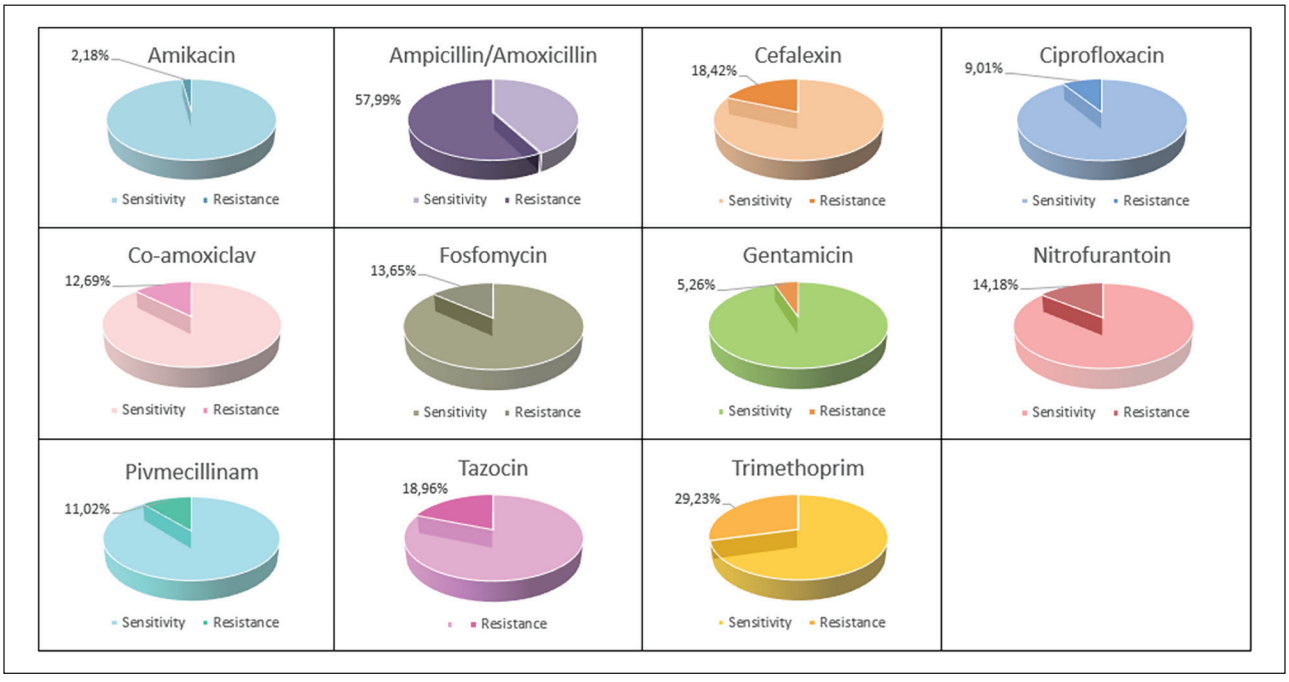

Figure 1. Microbial resistance patterns towards the eleven antibiotics considered in the study is highlighted and marked with the corresponding percentage.

patients. In this context, our study aims to assess the current AMR patterns of urinary tract infections (UTIs) associated to gram-negative bacteria. Thus, we provide useful information for doctors dealing with prophylactic and therapeutic empiric therapies.

Materials and Methods: We retrospectively analysed more than 650,000 urine cultures collected in the Microbiology Department of a referral University Hospital of Southern England from January 2014 to December 2022.

Results: AMR spectra for 164,059 gram-negative associated (UTIs) were analysed. The lowest percentage of resistance was found for Amikacin (2.30%), Gentamicin (5.89%) and Co-Amoxiclav (10.49%). In nine-years, there was no significant change in resistance to Amikacin (2.04% in 2014 to 2.18% in 2022;p=0.602) and to Fosfomycin (11.50% to 16.65%;p=0.577). Overall, the trend of AMR significantly rose for Cefalexin (17.96% to 18.42%;p<0.0001), Co-amoxiclav (9.46% to 12.69%;p<0.0001), Nitrofurantoin (10.20% to 14.18%;p<0.0001) and Piperacillin/Tazobactam (14.52% to 18.96%;p<0.0001). Gram negative resistance spectrum towards Ciprofloxacin (11.83% to 9.01%; p<0.0001), Gentamicin (6.29% to 5.26%;p<0.0001), Pivmecillinam (26.88% to 11.02%;p<0.0001), Trimethoprim (36.72% to 29.23%;p<0.0001) and Ampicillin/Amoxicillin (65.20% to 57.99%;p<0.0001) significantly decreased.

Conclusion: Despite the application of national and international guidelines for prophylaxis and treatment of UTIs, the resistance spectrum for the most common antibiotics is still changing. This must kept in mind when prescribing antibiotics for suspected UTI/sepsis associated with gram-negative infections. Updated therapeutic strategies can reduce selection of multi-resistant pathogens and provide more accurate care for patients.

P11-4 Baseline lower urinary tract symptoms correlation with motor and cognitive function in patients with treatment naïve and non-treatment naïve Parkinson's Disease

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Parkinson's Disease is a common, progressive neurodegenerative disease, affecting approximately 1% of the population aged 60 years and over. The associated morbidity and mortality are increasing at a faster rate than for any other neurological disorder. Lower urinary tract symptoms are reported in up to 85% of patients and can significantly impair quality of life.

To assess the baseline lower urinary tract symptoms, motor, and cognitive function and correlations using validated questionnaires in patients diagnosed with PD.

Data were prospectively collected from patients living with PD attending a movement disorders clinic using validated questionnaires and scales routinely employed in clinical practice (ICIQ-MLUTS; ICIQ-FLUTS; UPDRS-ME; modified Hoehn and Yahr; MoCA). Statistical analyses were performed using Stata 17 MP.

Data from 18 patients were collected (15 male and 3 female subjects; median disease duration 4 years; median modified Hoehn and Yahr stage 2.5). Incontinence symptoms were correlated with QoL burden ($p < 0.001$) and negatively correlated with cognitive function ($p = 0.046$). The non-drug-naïve group ($n = 12$, 66.7%) was found to have more severe motor symptoms ($p = 0.065$), more prevalent lower urinary tract symptoms ($p = 0.239$), and similar cognitive function to the drug-naïve group ($p = 0.785$). Reduced cognitive performance was found to be a more potent predictor of incontinence severity than motor symptoms severity.

We have found a significant correlation between cognitive decline and incontinence in a cohort of PD patients. However, no such correlation was found between motor symptoms severity and incontinence.

P11-5 Aligning the Patient Pathway: Getting It Right First Time in Bladder Outlet Obstruction

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Introduction: Bladder outlet obstruction (BOO) is a significant urological concern in males. Optimising patient care pathways for effective management is essential, adopting "Getting It Right First Time in Urology" (GIRFT) recommendations. This study evaluates their impact on patient pathways.

Patients and Methods: This observational cohort study contrasts patient demographics, required appointments, and time until treatment decision between a conventional nurse-led prostate assessment clinic and an innovative consultant-led one-stop clinic. As part of the modified care pathway, outcomes of local anaesthetic ambulatory outpatient prostatic urethral lift (PUL) procedures were assessed.

Results: Transitioning to the consultant-led one-stop clinic reduces the average appointments for a treatment decision from 2.47 to 1.20. At first attendance, patients listed for surgical intervention surged from zero to 46.2%. Further diagnostic testing necessity after initial consultation dropped from 62.1% to 3.8%. All PUL procedures were successfully completed under local anaesthesia, with safety outcomes matching broader clinical research.

Five patients treated for acute urinary retention discarded catheters within a month. Comparisons of IPSS, QoL, and Qmax for spontaneously voiding patients before and after treatment mirrored those from the L.I.F.T. study (Roehrborn, Claus G et al. The L.I.F.T. Study. The Journal of urology vol. 190,6 (2013): 2161-7) but with a significantly greater average reduction in post-void residual volume.

Conclusion: Implementing a consultant-led one-stop clinic enhances the patient care journey for BOO, curtailing hospital visits and the interval to treatment decision. The study reaffirms the safety and effectiveness of performing PUL under local anaesthesia, contributing positively to elective recovery pathways.

P11-6 Rezum steam ablation of the prostate for patients with urinary retention

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Introduction: Rezum is a safe and cost-effective treatment for lower urinary tract symptoms associated with benign prostatic enlargement (BPE). However, there is limited data for its use in people with urinary retention (UR).

Patients and Methods: Between March 2019 and July 2022, 132 patients underwent Rezum at our institution, of these, 18 had UR. UR included who used intermittent self-catheterisation (ISC)(n=11) or had an indwelling catheter (IC)(n=7). Thirteen UR patients had their procedure under local anaesthetic. All patients were followed up at three months and around two years. The primary outcome was independent voiding. Secondary outcomes included international prostate symptom score (IPSS), 28-day healthcare encounters and requirement for further treatment.

Results: ISC and IC patients were of comparable age (72, p=0.09), PSA (3.7, p=0.19) and prostate volume (50, p=0.62). Of these 18 patients, 15 (83%) were IC or ISC free at three months, IC (n=5, 71%), ISC (n=10, 90%). At a mean of 25 months, 15 of 17 (88%) patients were independently voiding with a mean IPSS of 8.8 and quality of life score of 0.4. Two patients had retreatment (TURP, HoLEP), one patient deceased. Ten (71%) patients had a median lobe which was not significantly different to the non-retention arm (53%, p=0.49). 28-day healthcare encounters were similar between groups (p=0.99).

Conclusions: Our rates of independent voiding are comparable to emerging data. Rezum may be an option for patients with UR secondary to BPE and offer a sustained effect.

P11-7 The Comparing UroLift Experience Against Rezūm (CLEAR) RCT: Preliminary analyses suggest a superior early patient experience with UroLift PUL (PUL)

Mr Mark Rochester[1], Mr. Neil Barber[2], Dr. Brian Mazzarella[3], Dr. Christopher Cantrill[4], Dr. Bilal Chughtai[5], Dr. Arnold Cinman[6], Dr. Jeffrey Schiff[7], Dr. Claus Roehrborn[8]
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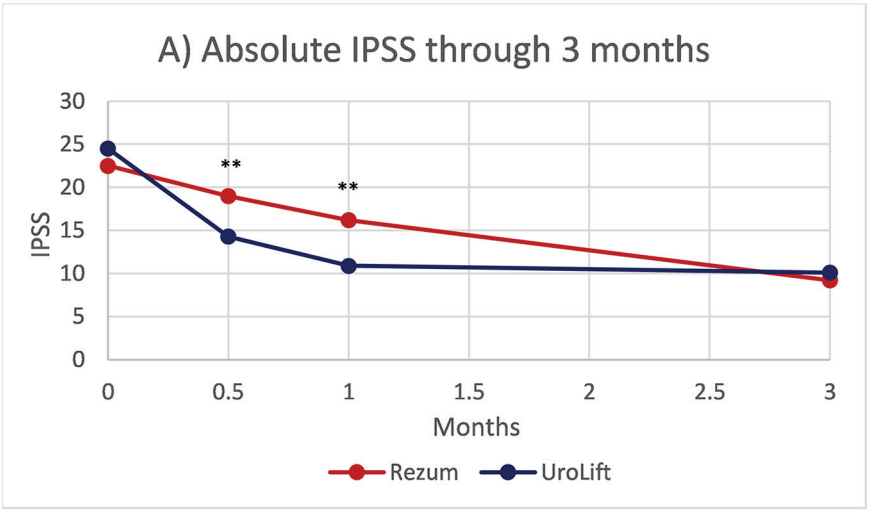
As an alternative to medication and invasive surgery for BPH, MISTs should provide symptom relief with a desirable patient experience. This is the first report on the CLEAR RCT comparing the patient experience between PUL and Rezūm, focusing on the first 3mo.

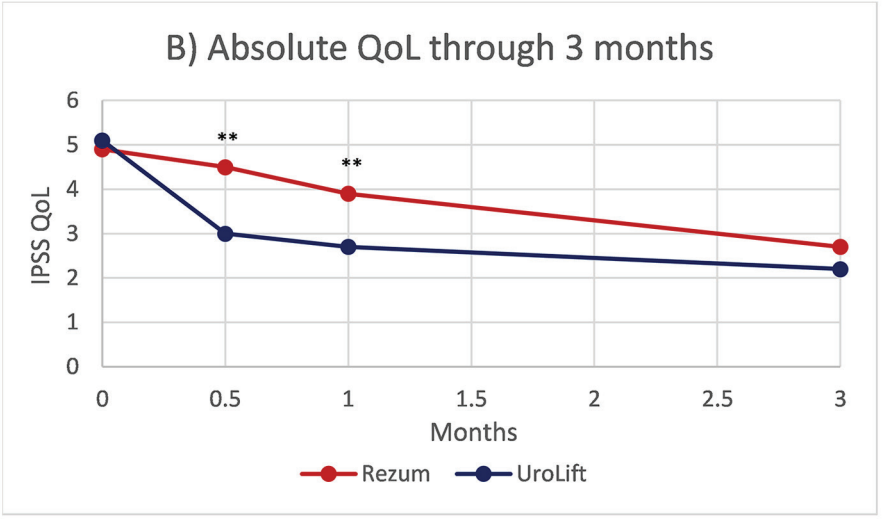
The CLEAR RCT, a prospective, multinational study with 1:1 randomization, evaluates patient experience, safety, and efficacy in BPH patients treated with PUL or Rezūm. The primary endpoint assesses catheter-independence from 3-7d post-operation. Also examined were symptom improvement, patient experience and surgical retreatment. This is a preliminary analysis of the data gathered to-date.

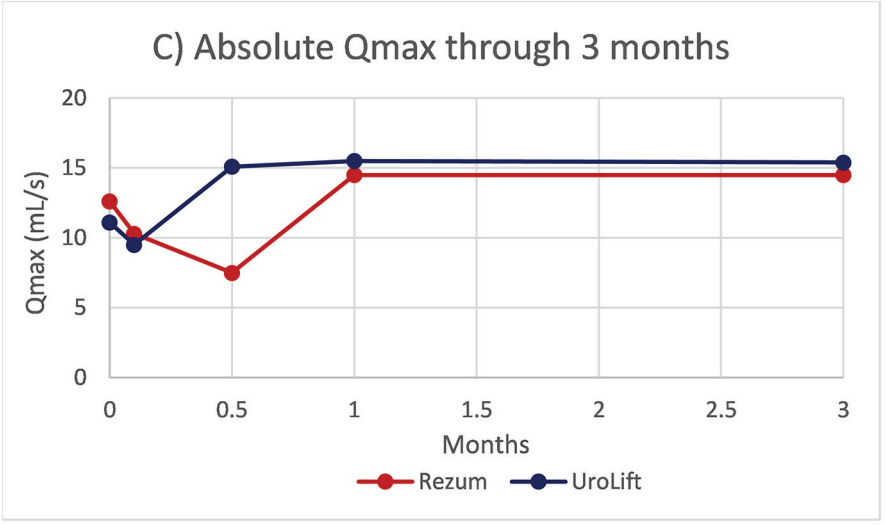
Analysis of 33 Rezūm and 35 PUL subjects revealed comparable baseline demographics. Notably, no PUL subjects failed the primary endpoint, while 26% of Rezūm subjects failed. 44% of those who failed the primary endpoint had recurrent catheterization by 365d. Improvements in IPSS and QoL were accelerated for PUL ($p<0.01$) but similar to Rezūm by 3mo (Figure 1). At 1mo, PUL subjects reported greater improvement in interference of outdoor entertainment and community activities vs. Rezūm. More PUL patients were overall satisfied with the procedure and would recommend the procedure at 14d and 1mo. Within 1yr, 1 patient from each treatment group underwent surgical retreatment.

Preliminary analysis of CLEAR, the first head-to-head RCT comparing early patient outcomes after PUL and Rezūm, suggests that PUL may provide a superior early patient experience, with lower catheterization, accelerated symptom relief, and higher satisfaction. These results may help providers and patients better understand the perioperative experience surrounding BPH treatments.

Figure 1: Absolute symptom scores through 3 months. A) IPSS, B) IPSS-QoL, C) Qmax. (** denotes significant difference in improvement from baseline between enrollment arms, p<0.01)







P11-8 Robotic water jet ablation (Aquablation™) to treat urinary retention in men with benign prostatic enlargement

Nadia Bitar[1], Ayesha Unadkat[1], Ahmed Khattak[1], Oussama Elhage[1], Jonathan Noel[1], Rick Popert[1], Mr Sachin Malde[1]
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Introduction: Robotic water jet ablation (Aquablation™) is a novel surgical treatment for men with lower urinary tract symptoms secondary to benign prostatic obstruction, and long-term efficacy has been proven in a randomised-controlled trial. However, outcomes in men with urinary retention are less well-studied. We report outcomes of this technique in consecutive men with urinary retention in a single center.
Patients and Methods: We analysed data from a prospectively collected database of all men treated with Aquablation™ in our center. Data on patient demographics, prostate volume, operative time, peri-operative complications, and catheter-free rates were collected.
Results: A total of 114 men, with a mean age of 67 years (47-87), were treated with Aquablation™ since July 2022. Indications for treatment were bothersome lower urinary tract symptoms in 73%, and urinary retention in 27%. Of those with urinary retention (n=31), mean prostate volume was 104cc (40-200). Fourteen had a middle lobe, with mean intravesical prostatic protrusion of 15 mm (6-38). Mean operative time was 67min (34-127), and catheter-free rates were 71% at 24 hours and 97% at 2 weeks, following surgery. There were two Clavien 3 complications with return to theatre for bladder neck haemostasis. No patients required blood transfusion.
Conclusions: Robotic water jet ablation is a safe and effective treatment for acute urinary retention in the short-term secondary to benign prostatic obstruction, irrespective of prostate volume. Further studies are required to assess its efficacy in the long term.

P11-9 A comparison of aquablation versus holmium laser enucleation of the prostate (HoLEP) as a treatment option for BPH: Preliminary analysis of our perioperative experience

Mr Mohammed Shahid[1], Mr William Finch[1], Mr Robert Mills[1], Mr Utsav Reddy[1], Mr Mark Rochester[1]
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Introduction: Aquablation has been introduced as a novel alternative to TURP. Previous studies compared it against TURP and showed lower morbidity. It is suggested that aquablation can be used for larger prostates and be performed as daycase surgery. This study compares aquablation with our standard daycase option for any size prostate (HoLEP).
Methods: Retrospective analysis of all men who underwent aquablation and HoLEP at a single UK NHS teaching hospital between April and December 2023. All procedures were scheduled as daycases by default. We compared age, prostate size, operative time, length of hospital stay, readmission rate and frequency of complications.
Results: Analysis included 55 aquablations and 106 HOLEPs, revealing comparable baseline demographics and prostate size. The mean total procedural time for aquablation was not significantly different to HoLEP at 65.6±27.6 min, versus 68.9±39.5min respectively. The length of hospital stay was significantly longer for aquablation at 1.36 versus 0.5 days ($p<0.001$, t-test). Daycase rate was higher for HoLEP (82%) versus 44% for aquablation. The only factor predicting daycase failure for aquablation was prostate size, (only 16% were daycases in prostate >80ml versus 61% in <80ml). 5.4% required blood transfusion post aquablation versus 0.9% post HOLEP. Postoperative Continuous Bladder Irrigation in the HOLEP group was less (4% versus 25%).
Conclusions: This is the first time that aquablation has been compared against HOLEP which can be used for any size of prostate. Aquablation is safe, but requires longer hospital stay and has higher rates of perioperative morbidity.

P11-10 Inter-operator variability in performing HoLEP: a single-centre study assessing the impact of surgeon experience and technique on procedural efficiency

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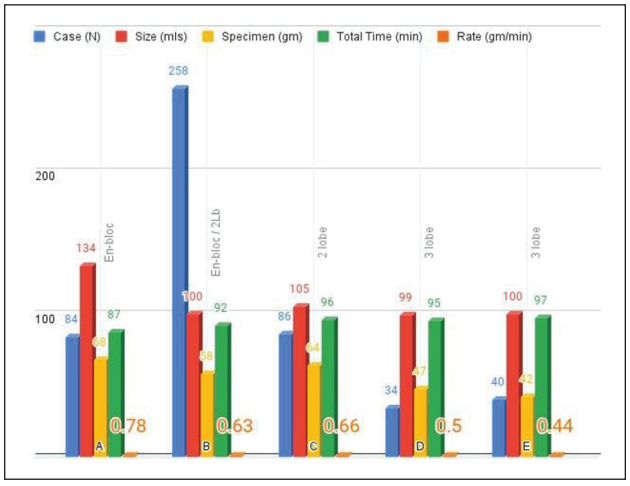
[1]Maidstone And Tunbridge Wells Nhs Trust, Maidstone, United Kingdom

Introduction: In this study, we have assessed the influence of operator and patient factors on the efficiency and enucleation ratio of HoLEP in our centre over a period of 3 years by looking at surgeon's techniques as well as prostate size variables.
Patient & Method: Prospective data collected for 502 patients who underwent HoLEP from 1/1/2020 to 31/12/2023 for 5 operating surgeons at the site, referenced as A, B, C, D & E. Parameters used are, estimated prostate size in cc; specimen weight in gms and duration of operation in minutes. PRISM software used for statistical analysis.

Result: With the averages of prostate size 106 (19-440) cc and operating duration of 93 (12-314) minutes, the mean enucleation ratio of the procedures was 0.55 gm/cc & efficiency was 0.64 (0.1 - 2.36) gm/min. Surgeon A used en-bloc technique, surgeon B did en-bloc and two-lobe (in 105/153 of his 258 cases), surgeon C did two-lobe technique, and others did three-lobe technique.
It was observed that 3 lobe techniques had a mean efficiency and enucleation ratio of 0.33 gm/min & 0.40 gm/cc in comparison to the mean of 0.67 gm/min & 0.56 gm/cc for the en-bloc and 2 lobe technique (P=<0.0001 for both). No significant difference in efficiency was found in 2 lobe and en-bloc techniques (P=0.089). HoLEP for larger than 100 cc prostates had superior efficiency than those under 100 cc size group with means of 0.69 and 0.48 gm/min, respectively (P- <0.0001). In the latest 271 cases, 26 cases involved trainees, which resulted in significant (P- <0.001) reduction of efficiency, mean from 0.61 to 0.39 gm/min, respectively, resulting in around 37% less efficiency.
Conclusion: Our study findings suggest the positive correlation between the prostate size and the efficiency of the procedure. It also clearly demonstrates that the 3 lobe enucleation technique has the least efficiency and enucleation ratio. These results can be used in optimising theatre planned time along with implementing measures to improve HoLEP training.



ePoster Session 12 Management/ Governance/Education/Quality Improvement 2, Wednesday 26 June, 0800-0900, Hall 11B

P12-1 Developing a robust Urology Pre-Operative Urine Culture pathway to reduce patient cancellations: a full cycle Quality Improvement Project

Mr Rustam Karanjia[1], Miss Oluwabunmi Tayo[1], Mr Pallab Sarkar[1], Miss Christine Boswell[1], Mr Michael Conroy[1], Dr Stephen Glass[1], Miss Jemma Hale[1]
[1]Kent & Canterbury Hospital, Canterbury, United Kingdom

Introduction: Urine microscopy, culture and sensitivity (MC&S) is essential prior to urinary tract surgery. Untreated positive cultures lead to procedure cancellations due to risk of post-operative urosepsis. Effective actioning of positive results is logistically challenging since it requires a robust pathway combining urology, pre-assessment and microbiology. We share the results of our audit, and changes made, to demonstrate the positive impact this can have for patients and urology teams.
Materials & Methods: An audit between Jan-Feb 2023 was conducted to assess the number of on-the-day cancellations for unactioned positive urine MC&S results. Intervention was implemented and re-audit completed between June-Sept 2023. Intervention included:

a) A weekly timetable assigning a urology registrar actioning results.
b) A cross-site pre-operative urine MC&S proforma, used by pre-assessment, available online.
c) A clear pathway, in conjunction with microbiology, determining which patients require pre-operative antibiotic treatment.
d) A minimum 15 days from pre-assessment until date of surgery, to allow adequate time to action positive results.

Results: 1st cycle: Over one month, 212 patients had planned endourology procedures. 6/212(2.8%) were cancelled on-the-day for untreated UTI.
2nd cycle: Over four months, and after intervention, 883 patients had planned endourology procedures. 11/883(1.2%) were cancelled on-the-day for untreated UTI. This equates to an annual reduction of 39 on-the-day cancellations, or seven all-day operating lists.
Conclusions: Developing an effective Pre-Operative Urine Culture Pathway has significantly reduced on-the-day cancellations and saved seven all-day operating lists annually. We hope our changes could inspire other Urology teams across the country with similar logistical challenges.

NHS
East Kent
Hospitals University
NHS Foundation Trust

Pre-Assessment Urology Urine Culture Review

* = to be completed by Doctor

1. PATIENT DETAILS			
Name		NHS number	
Date of Birth		Patient's preferred pharmacy:	

2. PROCEDURE DETAILS			
Procedure name		Reviewer Name*	
TCI Date		Date of Review*	

3. URINE CULTURE (PRE-ASSESSMENT TO COMPLETE ALL BOXES)			
MSU ☐ CSU ☐ SPC ☐ ILEAL CONDUIT ☐ NEPHROSTOMY ☐			
SYMPTOMATIC ☐ ASYMPTOMATIC ☐	**DRUG ALLERGIES:**	LATEST eGFR:	Date taken:
Does the patient have any of the following: STENT ☐ CATHETER ☐ NEPHROSTOMY ☐ ILEAL CONDUIT ☐			
Do any of the following apply: T1DM ☐ T2DM ☐ ON CHEMOTHERAPY ☐			

4. CULTURE RESULTS*	
Date:	

5. DISCUSSION WITH MICROBIOLOGIST* (if required)

6. PLAN*

7. PRESCRIPTION REQUIRED?*		
YES ☐ NO ☐	POSTED ☐ COLLECTED ☐ EMAILED ☐	Date Sent:

8. Cancellation required?	
YES ☐ NO ☐	**Reason if Yes**:

P12-2 Assessment of the investigation and management of patients presenting with symptoms of Urinary Tract Infections in primary care: A multi-disciplinary, closed loop audit

Miss Molly Nichols[1]
[1]*Whipps Cross University Hospital, London, United Kingdom*

Introduction: Urinary tract infections (UTIs) are among the most common infections managed by primary care. With NICE guidance differing by patient demographic, it can lead to confusion among non-clinical and clinical staff resulting in inappropriate triage, investigation and management. This can contribute to poor resource use and sub-optimal patient care.
Methods: A closed loop audit was performed at a single-centre General Practice on the investigation and management of patients presenting with UTI symptoms. Demographics included: infants and children, men, and adult, elderly, and pregnant women. Retrospective data were analysed.
To improve the triage and management of these patients by receptionists, nurses, midwives and doctors, an online template was designed in collaboration with multi-disciplinary team members. Teaching was delivered and posters outlining investigation and management were displayed. Following this intervention, data were retrospectively collected.
Results: First cycle results highlighted several areas of improvement. Half of infants and children did not receive appropriate investigation/management, with 19% of cases representing. The majority of adult men, adult women and elderly women were not investigated correctly.
Upon re-audit, the new template was utilised in 69% of cases. The were significant improvements in NICE compliance in most patient demographics, with use of the new template facilitating this.
Conclusions: It is essential to review NICE compliance in this subgroup, as patients who are incorrectly investigated and managed often re-present. Involvement of multidisciplinary team members in the audit process is essential such projects given the interprofessional responsibility for the care of patients presenting with UTI symptoms.

P12-3 Initial experience of Uromune® in Cornwall to reduce frequency of UTI in patients with recurrent UTI

Mr Nadeem Iqbal[1], **Mr Buraq Imran**[1], **Mr Matthew Hotston**[1], **Mr Christopher Blake**[1]
[1]*Rcht, TRURO CORNWALL, United Kingdom*

Introduction: Recurrent urinary tract infection (recurrent UTI) poses a significant challenge to patients. Uromune brings a novel therapeutic strategy with early encouraging results. We negotiated with our local prescribing committee to offer it, on a named patient basis, to those that had failed standard therapeutic strategies, with a view to reducing infections and antibiotic usage.
Methods: We reviewed records of 33 patients who had failed standard treatment options for reccurent UTI and received Uromune between October 2021 and April 2023. They were prescribed the standard course of the Uromune sublingual vaccine. They were followed up for 12 months after treatment. Number of UTI before and after Uromune intervention were recorded and paired t-test was utilised to determine statistical significance of decrease in number of UTI post uromune.
Results: Mean age was 59.73 years, 4 males, and 29 females. Twenty-three of the women were post-menopausal. One patient could not continue Uromune treatment due to side effects. Mean number of UTI before and after Uromune treatment were 4.24 and 1.94 respectively (p value$<$0.001). Eleven patients (34.37%) felt subjectively better post Uromune treatment. Twelve (36.36%) patients have subsequently restarted long term antibiotics post uromune.
Conclusion: In this small cohort of patients, Uromune has shown a significant decrease in frequency of UTIs. Post treatment, approximately a third of patients have required further low dose antibiotics.

Table. Outcome of Uromune use in recurrent UTI in Cornwall.

Variables	Results
Total Number patients	33
Male	4 (12.1%)
Female	29 (87.9%)
Mean Age	59.73 years
Number of UTI before Uromune	4.24
Number of UTI after Uromune	1.94 (*p value*$<$0.001)
Number patients felt better	11 (34.37%)
Patients back on long term antibiotics	12 (36.36%)

P12-4 Total Cost and Hidden Cost of Equipment Choices for Flexible Cystoscopy and LATP

Mr Toni Mihailidis[1], **Mr Jonathan Ord**
[1]*Cheltenham General Hospital, Cheltenham, United Kingdom*

Introduction: Throw away single-use devices are becoming increasingly popular in Urological practice, but are they really better and cheaper?

Materials and Methods: A comparison of capital investment cost, maintenance cost, sterilisation cost, waste, quality, reliability and hidden cost was performed using hospital data, invoices, receipts and our departmental experience.

Results:

1) Regarding prostate biopsies over a two-year period (approx. 2000 procedures):
   a. BK UA1232 (reusable): Capital investment (fifteen devices plus metal baskets) = £18,000; Maintenance = £300 per year; Sterilisation cost = £12,080; Disposable needles = £10000. Total cost = £40,680.
   b. Single-use transperineal prostate biopsy device: £180 each. Total cost = £360,000. In 2022 there was a serious supply issue with single-use devices that led us to invest in UA1232.
2) Flexible Cystoscopes over seven years (21,000 procedures):
   a. Olympus videoscopes: Capital cost = £500,000. Maintenance cost = £700,000. Sterilisation cost = £106,926. Total cost = £1,306,926.
   b. Single-use Ambu scopes: £125 each. Total cost = £2,625,000. Waste, especially 20 vs 21,000 microchip-containing plastic endoscopes, favours reusable.

Conclusion: All costs considered, the reusable flexible cystoscopes are half the price of single-use Ambu scopes. They save the Urology budget £1.3 million over 7 years, or £185,714 per year. The BK reusable UA1232 device is ten times cheaper than single-use transperineal prostate biopsy devices and would save the Urology budget £180,700 per year. Investment in these two reusable devices saves an enormous amount of money, provides the best quality, and protects better against global supply chain problems.

P12-5 A Cost-Consequence Analysis of the Man Van Project: Comparing Prostate-specific Antigen Testing on a Nurse-led Mobile Service with Primary Care

Mr Masood Moghul[1,2], Miss Deokhee Yi[3], Miss Fionnuala Croft[1], Miss Fiona Mutch[1], Miss Elizabeth Westaway[1], Dr Netty Kinsella[1], Mr Declan Cahill[1], Professor Nicholas James[1,2]

[1]Royal Marsden Hospital, London, United Kingdom, [2]Institute of Cancer Research, London, United Kingdom, [3]Imperial College London (Convergence Science Centre), London, United Kingdom

Introduction: The Man Van project is designed to address health inequalities and barriers to accessing healthcare that affect prostate cancer with novel community-based targeting of high-risk groups using a mobile clinical unit.

Methods: A cost-consequence analysis was undertaken to compare costs of both primary care and Man Van models of PSA testing. Baseline staffing costs were approximated from data obtained from the Personal Social Services Research Unit based in the UK and include direct and indirect overheads.

Results: Band 7 nursing costs average £62 per working hour, with 15-minutes costing £15.50. Band 4 care support worker costs average £35 per working hour, with 15-minutes costing £8.75. This gives a total cost of each Man Van appointment of £24.25. The cost per GP working hour is £255 with an average consultation length of 9.22 minutes. This gives a consultation cost of £39.19. An average phlebotomy appointment costs £4.70 giving a total cost of £43.89.

Conclusions: Like all NHS funded healthcare services health-economics is integral to supporting the case for this project. The project has shown cost-efficiency, costing almost half the costs of the standard process of primary care led PSA testing. Further work is needed, in particular the inclusion of other health checks in Man Van appointments and targeting of high-risk men is likely to add to further economic value to the service.

P12-6 Developing evidence based guidance for the use of prostate specific antigen testing in men over 80 years old

Dr David Faluyi[1], Mr Ben Lamb[2], Ms Elizabeth Bright[3]

[1]Academy Of Medical Royal Colleges, London, United Kingdom, [2]Cambridge University Hospitals NHS Foundation Trust, [3]Royal Cornwall NHS Hospital Trust,

Introduction: NICE guidance supports age-adjusted thresholds for the interpretation of PSA testing in all groups except men over the age of 80, where the use of 'clinical judgement' is advised. Screening and monitoring of PSA levels in men over 80 can create health anxieties and unnecessary hospital visits. Evidence shows that there is a risk of over-diagnosing and over-treating prostate cancer in men over 80 where there prevalence is highest, but the proportion of cancers which are clinically significant are the lowest. Through the 'Evidence Based Intervention' programme the academy of medical royal colleges (AoMRC) have created and support new clinical guidance for PSA testing in men over 80.

Patient and methods: Development of the guidance was facilitated through an expert working group which consisted of consultant urologists and primary care physicians with an interest in prostate cancer. The guidance went out to engagement with key stakeholders which include NICE, GiRFT Urology lead, Prostate Cancer UK and commissioners.

Results: The guidance recommends an initial shared decision making and recommends not to perform routine PSA testing unless there are concerns about advanced/metastatic disease. If a PSA test is performed, refer to a specialist if >20, or >7.5 if accompanying symptoms of metastatic.

Conclusion: The creation of this guidance demonstrates a collaborative, expert and evidence-based led approach to creating guidelines that aim to support both patients and clinicians, reduce unwanted variation in care and ensure that cancer pathways are managed appropriately.

P12-7 Facilitating the move to outpatient LA Rezum water vapour therapy; The Schelin catheter

Mr Mohamed Alnoomani[1], Mr Omar Alabed Allat[1], Mr Mohamed Noureldin[1], Mr Ramzy Elnabarawy[1], Patricia Musuka[1], Emma Potter[1], Prof Richard Hindley[1], Mr Amr Emara[1]

[1]Basingstoke And North Hampshire Hospitals, Basingstoke, United Kingdom

Introduction: Rezum is an effective MIST for BPH. In our centre, nearly 50% of patients are done under local anaesthesia +/- sedation. We are looking to expand the proportion of patients able to undergo without anaesthetic support. We report our early experience using the Schelin catheter (device for sterile transurethral injections of drugs into the prostate).
Patients and Methods: From September 2023 a total of 12 Rezum cases were performed under LA using the Schelin catheter. In addition to the standard topical anaesthetic gel, 20 mls of Lidocaine 1% were infiltrated transurethrally into the prostate in 4 directions at 11,1,4 and 8 o'clock. Pain scores were recorded during the LA injection and after the procedure. An average number of 5 treatments were injected into the prostate with an average size of 57 cc.
Results: The pain score during the LA infiltration was an average of 3/10 and scored 4/10 during the Rezum procedure, without compromising the subsequent Rezum procedure. 11/12 of the patients reported that they would have the procedure again under LA if needed. All patients were discharged within 90 minutes following the procedure and passed their first TWOC successfully.
Conclusion: Our early experience of using the Schelin catheter to enable the delivery of a successful LA Rezum procedure are encouraging. We hope that this will facilitate a move to an outpatient setting within a urology investigation unit.

P12-8 Quality and readability of google search information on HoLEP for benign prostate hyperplasia

Dr Yam Ting Ho[1], Dr Jeremy Saad[1,2], Dr Femi Ayeni[2], Dr Mohamed Khadra[1,2], Dr Mohan Arianayagam[1], Dr Bertram Canagasingham[1], Dr Nicholas Mehan[1], Dr Celi Varol[1], Dr Nicola Jeffrey[1], Dr Isaac Thangasamy[1,2], et al.

[1]Nepean Hospital, Kingswood,, Australia, [2]University of Sydney, Camperdown,, Australia

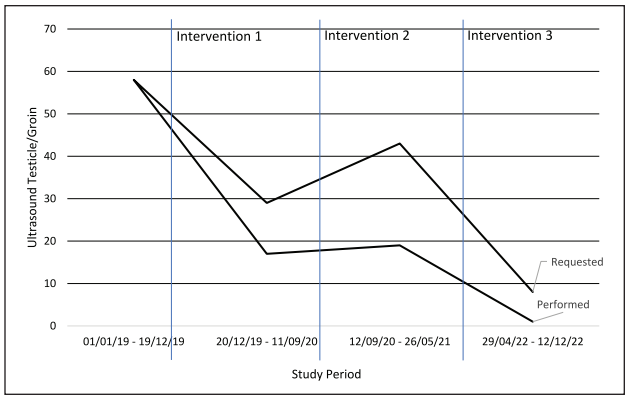
Introduction: To assess the quality and readability of online information on holmium laser enucleation of the prostate in management of benign prostate hyperplasia using the most used search engine worldwide, google.
Methods: The google search term "Holmium laser surgery" and "enlarged prostate" was used and the initial 150 webpages were reviewed. Webpages that were paywall, scientific literature, and/or promoted advertisements were excluded. Quality assessment tools - DISCERN, QUEST, and JAMA criteria were used, while readability tools like FKG, GFI, SMOG, and FRE score were used. Two authors independently reviewed the included sites for further analysis; for any discrepancy, a third author would be involved.
Results: 107 webpages were included in the data analysis. The median DISCERN score was 42 out of 80 (IQR 35-49). The median JAMA score was 0 out of 4 (IQR 0-1). The median QUEST score was 9 out of 28 (IQR 9-12). Using the non-parametric ANOVA and post-hoc test, significant differences were identified between rankings of webpages. Sponsorship had no influence on quality of webpages. Overall readability level required a minimum reading level of grade 11. Linear regression analysis showed a higher rank webpage is a positive predictor for all three quality assessment tools.
Conclusion: The overall quality of online information regarding HoLEP is poor. We identify that top ranked google searches have a higher DISCERN score and is a positive predictor for DISCERN/QUEST/JAMA. Quality online information can be used to benefit patients but should be used in conjunction with consultation from a medical professional.

P12-9 DESCENT: Departmental Evaluation of Scrotal imaging Considering European and National Testicle Guidelines

Mr Darryl Bernstein[2], Dr Harry Manning[1], Dr Kapila Jain[1], Dr Sebastian Chang[1], Mr Abraham Cherian[3], Miss Shabnam Undre[1]

[1]East and North Hertfordshire Hospitals NHS Trust, Stevanage, United Kingdom, [2]Division of Surgery and Interventional Science, University College London, London, United Kingdom, [3]Great Ormond Street Hospital, London, United Kingdom

Introduction: European Association of Urology guidelines state that imaging is not indicated for undescended testis. However, many scans are still performed. A quality improvement project was conducted over 4 years at a secondary centre to analyse imaging requests, before implementing changes to reduce unnecessary imaging.
Methods: All testes scans requested for males under 16 years over a 29 months period were reviewed. Analysis included requesting clinician, reasoning and result. At months 12 and 21 the radiology department were briefed to ensure stringent vetting of scans based on guidelines.



Graph 1. Ultrasound Testes Requested and Performed per Intervention Point.

After these 29 months, an education poster was sent to local GPs, and an electronic restriction was implemented. Data was re-analysed over 8 months prospectively to assess intervention success.

Results: Results showed that prior to intervention 58 undescended testes scan requests were made. Through increased vetting there was reduction in unwarranted scans, with 74% being rejected.

Increasing GP education and modifying request protocol showed a further 95% improvement in guideline adherence.

These interventions have resulted in significant Hospital savings of more than £2,000 both in equipment and staff costs. Extrapolating the 1.2 million served by this hospital to the UK as a whole, could amount to saving over £112,000 per year. More importantly unwarranted parental and patient anxiety and stress has also been reduced through referring via appropriate pathways.

Conclusion: Through intervention, unnecessary requests were rejected and fewer requests made, highlighting the value of education and changing protocols. These measures ensured guideline adherence, cost effectiveness and effective patient care.

P12-10 Improving the Emergency Urology Stone Pathway with Elective Theatre Utilisation: A Closed Loop Audit

Mr Arjun Nathan[1], Dr Luke Zhu[2], Dr Natacha Rosa[2], Dr Alexander Ng[2], Mr Maen Khalifeh[2], Dr Matthew Riley[2], Mr Gidon Ellis[2], Mr Rajesh Kucheria[2], Mr Leye Ajayi[2], . . Urology Consultants and CNS[2]

[1]UCL, London, United Kingdom, [2]Royal Free Hospital, London, United Kingdom

Introduction: Urinary tract stones account for almost 25% of emergency admissions to urology. NICE guidelines recommend definitive treatment with primary ureteroscopy or extracorporeal shockwave lithotripsy within 48hrs of acute presentation rather than temporising ureteric stents. However, due to pressures on emergency theatre availability and surgical expertise, it can be challenging to provide definitive stone management.

Methods: A closed loop audit was performed at a tertiary teaching hospital in the United Kingdom. All patients presenting with computed tomography proven ureteric stones requiring surgical intervention, without signs of infection were included. The retrospective phase took place between October and December 2022. For the prospective phase, a single, one-hour slot from our daily elective urology list was repurposed for an emergency case. This was assessed between January and April 2023. The primary outcome was the rate of primary ureteroscopy. Length of stay and theatre slot utilisation were secondary outcomes.

Results: There were 42 and 37 eligible patients during the retrospective and prospective phases respectively. Patient demographics, stone characteristics and biochemical markers were similar between groups. Post-intervention, primary ureteroscopy rates increased by 58.8% compared to the retrospective phase (23.8% vs 37.8%, p=0.179). Length of hospital stay (2.69 and 2.65 days, p=0.107) was similar, and 33 out of 41 (80.5%) available elective slots were utilised.

Conclusions: A ring-fenced slot for emergency urological cases on the elective theatre list can increase the rate of definitive stone management, improve adherence to national guidelines and reduce secondary procedures.

ePoster Session 13 Prostate Cancer 2, Wednesday 26 June, 1400-1500, Hall 9

P13-1 Real world assessment of MRI predictors of rectal complications following transperineal SpaceOAR Hydrogel Insertion

Dr Jonathan Kam[1], Dr Luke Kissane[1], Dr Stuart Jackson[1], Dr Mohan Arianayagam[1], Dr Bertram Canagasingham[1], Dr Ahmed Saeed Goolam[1], Dr Matthew Winter[1], Prof Mohamed Khadra[1], A/Prof Raymond Ko[1], Dr Nicholas Mehan[1], Dr Isaac Thangasamy[1], A/Prof Celi Varol[1], Dr Maria Azzi[1], Dr Nicola Jeffery[1]

[1]Nepean Urology Research Group, Sydney, Australia

Introduction: Post-market surveillance of SpaceOAR suggests significant complications are much more common than suggested by the original PIVOTAL trial.

We aimed to assess the symmetry of deployment and rates of rectal wall infiltration during placement of SpaceOAR hydrogel spacers for patients with prostate cancer and their association with significant rectal toxicity.

Methods: A retrospective audit of men who underwent SpaceOAR hydrogel insertion at 2 centres from 2017 to

2021 prior to radiotherapy for prostate cancer. Post-insertion MRIs were assessed for symmetry and rectal wall infiltration (RWI) according to the PIVOTAL trial protocol.

Results: 87 patients were identified for analysis. Median age was 72 years (range: 51–84) and PSA 8ng/mL (range: 3.1–23).

36 (41%) cases had rectal wall infiltration on the post-SpaceOAR insertion MRI. 20 (23%) were grade 1, 9 (10%) grade 2 and 7 (8%) were grade 3. Three patients had significant rectal complications, 2 had grade 2 rectal ulceration and 1 developed a rectourethral fistula. All 3 cases had significant grade 3 RWI on MRI, suggesting that grade 3 RWI is a significant risk factor for rectal complications post SpaceOAR insertion. Only 2 of the 7 cases of grade 3 RWI had GI symptoms.

Conclusion: Our real-world data suggests SpaceOAR hydrogel insertion results in a much higher RWI rate than suggested by the PIVOTAL trial (6% vs. 41% in our cohort). Grade 3 RWI was associated with a significant risk of rectal complications and could not be reliably predicted by GI symptoms.

P13-2 Urinary Continence Definitions following Robot-assisted Radical Prostatectomy (RARP): A Systematic Review

Miss Nikki Kerdegari[1,3], Mr Findlay MacAskill[2,3], Mr Majed Shabbir[2,3], Mr Arun Sahai[2,3]
[1]King's College London, London, United Kingdom, [2]Guy's and St Thomas' NHS Foundation Trust, London, United Kingdom, [3]Guy's PPS Research Group, London, United Kingdom

Introduction: There is a wide variety in urinary incontinence (UI) definitions following RARP. This can lead to disparities between expected and actual UI outcomes achieved. We aimed to review the literature to review the definition and method used to measure continence following RARP.

Materials and Methods: A systematic review was conducted in November 2022 following PRISMA guidelines using MEDLINE/PubMed, EMBASE and Web of Science databases. All studies in English were included except conference/meeting abstracts, population-based studies, case reports and case series with fewer than 100 cases.

Results: Two-thousand and sixty-six records were initially identified. After excluding duplicates, 1,588 abstracts were screened, and 315 articles retrieved for full-text screening. 249 studies were included in the final narrative review. There were 31 different variations for continence definition used including those that were undefined. The most common was use of no pads, followed by 0-1 safety pad. Other definitions included 0 pads with no urine leak or leaking rarely or never, up to 2 pads/day or the 'absence of uncontrolled leakage of urine'. The information to measure continence was obtained via patient interviews, inferred from PROMs score, assumptions if leak free on PROM then no pad used, a combination or not reported. The prevalence of urinary continence at 12 months ranged from 32.68% to 98.70% using a no-pad definition.

Conclusions: There is large variability in definitions and reported rates of urinary continence following RARP. Standardisation of the definition of continence is essential to ensure the expected matches the actual continence outcomes achieved.

P13-3 The Man Van Project: Second Phase Interim Results

Mr Masood Moghul[1,2], Miss Fionnuala Croft[1], Miss Fiona Mutch[1], Miss Elisabeth Westaway[1], Dr Netty Kinsella[1], Mr Declan Cahill[1], Professor Nicholas James[1,2]
[1]Royal Marsden Hospital, London, United Kingdom, [2]Institute of Cancer Research, London, United Kingdom

Introduction: Man Van project ran pilot designed to address inequalities that affect prostate cancer with novel community-based targeting of high-risk groups on a mobile unit. Following the pilot the project was redesigned to increase efficiency and relaunched.

Methods: Patient throughput was increased by reducing appointment times from 30 to 15 minutes, with capacity for over 100 patients per week. Efficiency was increased by developing an online registration system with pre-attendance questionnaires. Multiple text message reminders were utilised to reduce non-attendance rates.

Results: Between January 2023 and June 2023, 1431 men booked to be seen at Man Van clinics. 1234 men attended with a 10% non-attendance rate (previously 24%). The median age was 59 years, range 39-97. 64% of attendees were white and 11% had Black ethnicity.

108 two-week wait referrals for suspected prostate cancer were made. Median PSA was 5.95g/L, (range 2.61-167g/L). 91 patients had MRI scans of the prostate of which 58% scored PIRADS 1/2, 12% PIRADS 3 and 30% PIRADS 4/5. 45 patients underwent biopsies with 34 prostate cancers diagnosed (76% of biopsies): an overall diagnostic rate of 2.8%. 31 of these cancers (91%) were clinically significant (Gleason 3+4 >5% or higher grade).

Conclusions: The Man Van project has evolved into a more efficient service whilst maintaining participation rates of high-risk groups. Of relevance is our diagnostic rate of clinically significant disease. The difference between this rate and similar large scale screening studies suggests

that our strategy of targeting high-risk men skews the case mix towards higher-risk disease.

P13-4 Are Systematic Prostate Biopsies necessary? A comparative analysis of Targeted vs Combination Local Anaesthetic Transperineal (LATP) Biopsies on Cancer Detection and Clinical Impact on Patient Management

Mr Rustam Karanjia[1], Dr Ben King[1], Mr Pallab Sarkar[1], Mr Osama Haider[1], Mr Vishnu Basavaraju[1], Mr Curtis Phelan[1], Miss Oluwabunmi Tayo[1], Mr Edward Streeter[1], Mr Ben Eddy[2], Professor Sashi Kommu[1]
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Introduction: Prostate biopsy is essential for the histology diagnosis of prostate cancer. Advances in MRI prostate now allow for highly accurate target biopsies. EAU guidelines advise a combination of both targeted and systematic biopsy. However, this has been associated with oversampling issues. Herein, we aim to identify whether MRI targeted biopsies alone are non-inferior to combination biopsies in regard to clinical management.
Materials & Methods: Patients undergoing both transperineal targeted and systematic biopsies after MRI were identified over 28 months. Clinically Significant Disease (CSD) was defined as Gleason Grade Group (GG) >2. Primary outcomes were (a) CSD identified on systematic biopsy missed in targeted biopsies and (b) management changes based on systematic biopsy.
Results: 697 patients were identified. Median age was 68 (range 45-83), PSA 6.6 ng/mL (range 0.3-127) and prostate volume 45cc (range 9-192). 566(81%) were primary biopsies. Median number of target cores was 5 (range 2-15) vs. 24 (range 4-33) for systematic. Systematic biopsy Gleason pattern was higher than target biopsies in 165(24%) patients. 92(13%) patients had treatment changes as a result: 59(8%) had CSD not identified in targeted biopsy and 33(5%) had active surveillance removed as a treatment option. Low-risk disease was detected incidentally on systematic biopsy in 54(8%) patients.
Conclusions: MRI targeted biopsy alone would have missed CSD or incorrectly kept Active Surveillance as a treatment option in 92(13%) patients. We conclude that combination biopsies should remain gold-standard at present, as a significant proportion of management changes were attributed to systematic sampling. Large-scale multicentered studies are warranted.

P13-5 Mind and body in Prostate Cancer: Is there an association between mental wellbeing and 1-year functional outcomes?

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Introduction: A known association between mental health conditions and poorer functional outcomes exists in prostate cancer. However, there is little evidence evaluating the broader concept of mental wellbeing which includes domains outside of pure mental health. We therefore aimed to evaluate the association between mental wellbeing symptoms and subsequent functional outcomes.
Patients and Methods: Patients from the MIND-P study (NCT04647474) were utilised consisting of 300 newly diagnosed patients within a multi-centre cohort study. Five mental wellbeing outcomes were evaluated including depression, anxiety, fear of recurrence, body image, and masculinity. The association between developing significant mental wellbeing symptoms during follow up and 1-year EPIC-26 scores was assessed using a uni and multivariate linear regression.
Results: Whilst univariate evaluation demonstrated all mental wellbeing outcomes to be related to all functional outcomes, on adjustment, a less certain association existed. No relationship was present between depression, anxiety, and any functional outcome (all $p > 0.10$). Body image issues however were associated with poorer urinary incontinence scores (coefficient -5.48, $p<0.05$), with fear of cancer recurrence related to poorer urinary obstructive symptoms (coefficient -4.70, $p<0.01$). Lastly, significant masculine self-esteem issues was correlated with poorer obstructive (coefficient -7.30, $p<0.01$) and sexual scores (coefficient -10.07, $p=0.02$).
Conclusions: We found little association between anxiety and depression and functional outcomes. However, usually less investigated constructs such as body image, fear of cancer recurrence, and masculinity appeared to have a closer association, demonstrating their importance for patient quality of life and should be considered when attempting to improve subsequent functional outcomes.

Table 1. Relationship of significant mental wellbeing symptoms with functional and social outcomes at 12 months post diagnosis.

	Urinary Incontinence Regression Coefficient (95% CI, p-value)	Urinary Irritative/ Obstructive Regression Coefficient (95% CI, p-value)	Sexual Regression Coefficient (95% CI, p-value)	Social Wellbeing Regression Coefficient (95% CI, p-value)
Depression				
Unadjusted	-6.53 (-12.73— -0.33, p=0.04)*	-5.40 (-9.97- -0.83, p=0.02)*	-12.05 (-21.79- -2.31, p=0.02)*	-3.13 (-5.02- -1.24, p=0.001)*
Adjusted	- 1.43 (-7.44-4.59, p=0.64)	-2.60 (-7.34-2.15, p=0.28)	-4.18 (-12.35-4.00, p=0.32)	-1.54 (-3.38-0.30, p=0.10)
Anxiety				
Unadjusted	-8.94 (-16.23- -1.66, p=0.02)*	-6.47 (-11.08- -1.86, p<0.01)*	-14.43 (-25.45- -3.41, p=0.01)*	-5.05 (-7.20- -2.90, p<0.001)*
Adjusted	-4.98 (-11.18-1.22, p=0.12)	-3.11 (-7.92-1.71, p=0.21)	-5.65 (-13.96-2.69, p=0.18)	-1.63 (-3.53-0.28, p=0.09)
Body Image				
Unadjusted	-11.73 (-17.58- -5.89, p<0.001)*	-8.90 (-13.11- -4.68, p<0.001)*	-21.58(-30.41- -12.75,p<0.001)*	-2.54 (-4.34- -0.74, p<0.01)
Adjusted	-5.48 (-10.89- -0.06, p<0.05)*	-8.55 (-17.24-0.13, p=0.05)	-11.01 (-28.46-6.44, p=0.22)	-0.12 (-3.44-3.20, p=0.95)
Fear of Recurrence				
Unadjusted	-4.76 (-9.42- -0.09, p<0.05)*	-7.10 (-10.38- -3.82, p<0.001)*	-1.30 (-8.48-5.88, p=0.72)	-3.56 (-4.92- -2.20, p<0.001)*
Adjusted	-0.83 (-5.05-3.40, p=0.70)	-4.70 (-8.11- -1.28, p<0.01)*	0.76 (-4.99-6.50, p=0.80)	-2.29 (-3.57- -1.01, p=0.001)*
Masculine Self-Esteem				
Unadjusted	-11.20 (-17.98- -4.41, p=0.001)*	-8.62 (-13.52- -3.73, p=0.001)*	-18.08 (-28.50- -7.66, p=0.001)*	-3.76 (-5.81- -1.72, p<0.001)*
Adjusted	-5.31 (-11.61-0.99, p=0.10)	-7.30 (-12.25- -2.35, p<0.01)*	-10.07 (-18.64- -1.51, p=0.02)*	-2.35 (-4.26- -0.44, p=0.02)*

Index: CI – Confidence Interval, MWB – Mental Wellbeing
** Statistically Significant*
Adjusted for age, treatment modality received, smoking status, alcohol intake, past psychiatric history, stage of disease and baseline functional/social score

P13-6 Identification of factors associated with the detection of localised radiorecurrent prostate cancer: an analysis from the FORECAST trial

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Introduction: Patients with radiorecurrent prostate cancer may be candidates for local salvage treatments, so accurate detection of localised radiorecurrent disease is important. We investigated what factors are associated with the presence of intra-prostatic cancer on biopsy.
Patients and Methods: FORECAST (NCT01883128) was a prospective UK multi-centre cohort diagnostic study recruiting 181 patients with suspected radiorecurrent disease who underwent multiparametric prostate MRI then transperineal 5mm template prostate mapping and MRI-targeted biopsies. MRI was assessed using a 5-point Likert score. Only men without nodal/distant metastases on 18F-Choline PET/CT and bone scan were included. A multivariable logistic regression model was fitted, with the primary outcome being the presence of cancer on biopsy. Odds ratios (OR) and 95% confidence intervals (95%CI) were calculated.
Results: 111 patients without metastases were included. 90/111 (89%) patients had cancer detected on biopsy. 63/90 (70%) had grade group 3-5 disease, and median maximum cancer core length was 8mm (IQR 4-11). After multivariable adjustment, the two variables significantly associated with detection of cancer on biopsy were a higher PSA rise from nadir (OR 2.89, 95%CI 1.12-7.47,

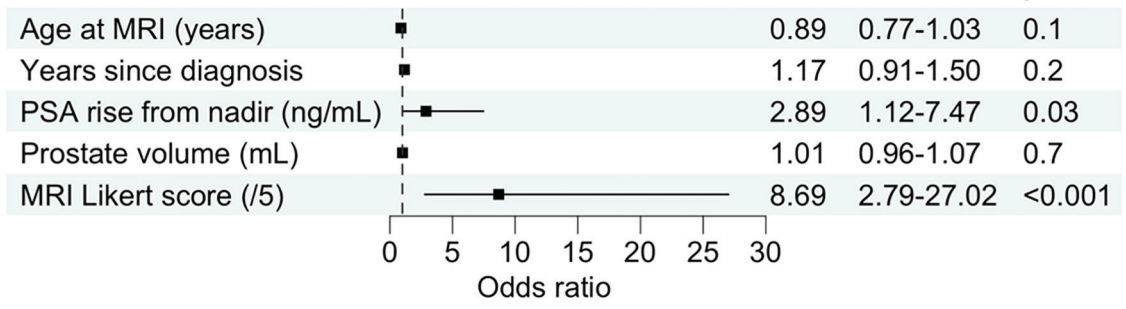

Fig.1: Forest plot displaying odds ratios (OR) with 95% confidence intervals (95% CI) for each variable in predicting cancer on biopsy.

p=0.03), and a higher MRI Likert score (OR 8.69, 95%CI 2.79-27.02, p<0.0001; Fig.1). Neither age at MRI, years since diagnosis, nor prostate volume were significantly associated with the presence of cancer.

Conclusions: Intra-prostatic disease is common in men with suspected radiorecurrent cancer, with most tumours having high grade and length. A greater rise in PSA from nadir, and increasing suspicion of intra-prostatic cancer on MRI were strongly associated with detecting cancer on biopsy.

P13-7 Salvage focal ablation versus radical prostatectomy for localised radiorecurrent prostate cancer: a propensity-score matched comparison

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Introduction: Many patients with localised radiorecurrent prostate cancer are suitable for treatment to the prostate. We aimed to compare salvage radical prostatectomy (sRP) and salvage focal ablation (sFA) in an international, multicentre propensity-score matched comparison.

Patients and Methods: 899 patients with biopsy-confirmed, localised radiorecurrent prostate cancer were evaluated from 32 centres across the UK, Europe, North America, and Australia (sFA: n=333; sRP: n=560). HIFU and cryotherapy were the 2 sFA modalities included. sRP included laparoscopic, robotic and open approaches. Propensity score matching was performed based on variables measured at the point of diagnosing radiorecurrence. The primary outcomes were cancer-specific survival (CSS) at 5 and 10-years. Secondary outcomes were peri-operative complications and local retreatment in the sFA group.

Results: The matched cohort included 179 patients per group. Median age was 68.0 years (95%CI 64.0-72.0), with median 6.8 years since initial diagnosis (95%CI 4.7-9.8). CSS was not statistically significantly different (log-rank p=0.62; Fig.1). 5-year CSS for sFA compared to sRP was 0.97 (95%CI 0.93- 1.00) vs 0.92 (95%CI 0.86-0.99), and 10-year CSS was 0.79 (95%CI 0.64-0.97) vs 0.87 (95%CI 0.75-1.00). For sFA vs sRP patients, any peri-operative complications (8% vs 47%; p<0.001) and major complications (Clavien-Dindo 3-5; 2% vs 16%; p<0.001) were significantly less frequent in sFA patients. 33/179 (18%) sFA patients required further local treatment.

Conclusions: 5- and 10-year survival outcomes were encouraging and comparable between sFA and sRP, indicating the efficacy of these salvage treatments. sFA was associated with less peri-operative morbidity, though 1 in 5 required further local treatment.

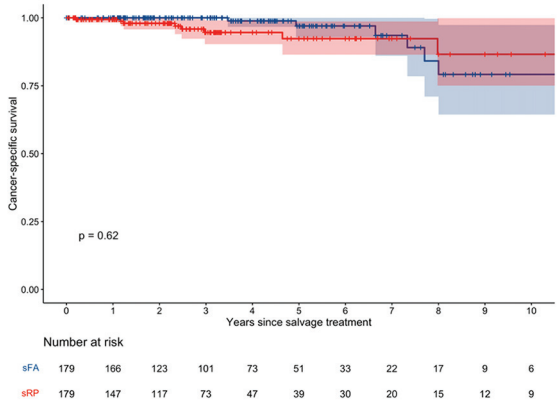

Fig.1: Kaplan-Meier curve plotting cancer-specific survival for sFA vs sRP in the propensity-score matched cohort. The *p* value for the log-rank test comparing distributions is given.

P13-8 The Trans-Atlantic Recommendations for prostate Gland Evaluation with MRI after focal Therapy (TARGET) international consensus recommendations

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Introduction: After focal therapy for prostate cancer, patients require close surveillance in case of tumour recurrence within the treatment zone. Prostate MRI is key, but no robust guidance exists regarding its use. We used consensus methodology and an international, multidisciplinary, expert panel to derive new recommendations for the conduct and interpretation of MRI post-focal therapy.
Materials and Methods: The RAND/UCLA Appropriateness Method was used to conduct a 2-round consensus study. 24 panellists from 7 countries across Europe and North America participated, comprising 13 radiologists, 10 urologists, and 1 pathologist. During Round 2, 334 statements were discussed and scored by panellists with a 9-point Likert scale. Only statements rated with 'agreement' or 'disagreement' with 'consensus' were included in recommendations.
Results: 82.1% of statements were scored with agreement/disagreement and consensus following Round 2. Key recommendations include performing a routine MRI at 12 months post-ablation using a multiparametric protocol compliant with PI-RADS v2.1 technical standards. For MRI interpretation, PI-RADS scores should not be used to assess for recurrent cancer within the treatment zone. An alternative 5-point TARGET scoring system has been designed (Fig.1A). This incorporates a major DCE sequence and co-minor DWI and T2W sequences. Each individual sequence is scored out of 3, before an algorithm is used to determine the overall 5-point score. For the DCE sequence, focal nodular strong early enhancement was the most suspicious imaging finding (Fig.1B).
Conclusions: The TARGET expert consensus recommendations and the 5-point TARGET scoring system could improve MRI use post-focal ablation, and now requires multi-centre validation.

P13-9 Focal HIFU and cryotherapy for prostate cancer: a HEAT and ICE analysis of 15-year usage trends in the United Kingdom

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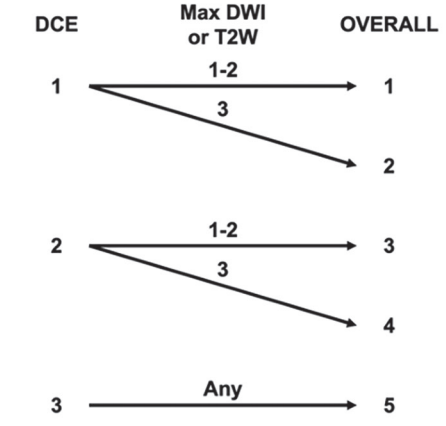
Introduction: With improved use MRI-based diagnostics, focal therapy has been increasingly studied as a tissue-sparing treatment for localised prostate cancer. However, despite sharp increases in the number of focal therapy publications, there are few data examining trends in real world usage. The aim of this study was to detail focal HIFU and cryotherapy usage in the UK over a 15-year period.
Patients and Methods: The HEAT and ICE national registries for focal HIFU and cryotherapy, respectively, were accessed. The number of men undergoing focal HIFU and cryotherapy recorded in the 15-year period between 2006-2021. Men were categorised according to the EAU classification.



B

DCE score	Interpretation	Criteria
1	Non-suspicious	No early enhancement OR Focal late enhancement OR Any other finding not meeting criteria for score 2 or 3
2	Equivocal	Focal nodular mild early enhancement OR Thin linear early enhancement OR Curvilinear early enhancement
3	Suspicious	Focal nodular strong early enhancement

Fig.1: A, 5-point TARGET scoring system for the assessment of lesions within the ablation zone post-focal therapy on MRI. **B**, Criteria for DCE sequence interpretation.

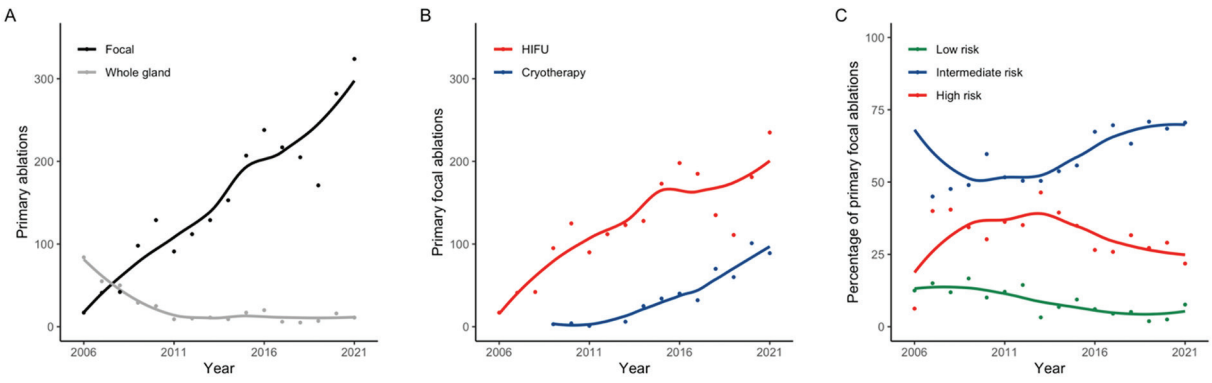


Fig.1: Usage trends for primary focal therapy in the UK between 2006 and 2021, plotted as smoothed curves. This includes: comparison of focal ablation and whole-gland ablation usage (**A**), comparison of HIFU and cryotherapy (**B**) usage, and percentage of cases categorised by EAU risk groups (**C**).

Results: 2456 primary focal ablations were performed between 2006-2021 (1991 HIFU, 465 cryotherapy) at 14 centres. The number of focal ablations increased linearly from 17 in 2006 to 324 in 2021 (Fig.1A). In contrast, whole gland ablations decreased to a low of 9 in 2009. These numbers remained low until 2021. HIFU remains more widely used, although use of both modalities is gradually rising (Fig.1B). The majority of treated patients had intermediate-risk disease, rising from 50% cases in 2013 to 71% in 2021 (Fig.1C). High-risk cases fell from 46% in 2013 to 22% in 2021. Low risk cases comprised the smallest proportion of cases.

Conclusions: Focal HIFU and cryotherapy are increasingly used in the UK, accompanied by a sharp fall in whole-gland ablation. Very few patients had low-risk disease, whilst an increasing proportion had intermediate-risk disease, which may reflect a better understanding of focal therapy patient selection.

P13-10 Morphine inhibits PC3 cell proliferation of and pro-inflammatory cytokine release fin vitro via the inhibition of the JNK/PI3K-Akt/GSK-3Beta/Src/Lck signalling pathway: Clinical significance in prostate cancer management?

Miss Prapussara Sirikhansaeng[1], Muhammadbakhoree Yusuh[1], Laurie Lau[2], Omar Abdelwahab[1], Associate Professor Brian Birch[3], Professor Bashir Lwaleed[1]

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Introduction: Morphine has been reported to stimulate proliferation in some cancer cell lines raising concerns about its clinical use.

The progression of prostate cancer (PCa) has been shown to depend on a intracellular signalling events involving the PI3K-Akt and GSK-3β pathways

We investigated the effects of morphine in PCa by studying its effects on PC3 cell proliferation and cytokine release in vitro.

Methods: 1. Cytotoxicity

PCa cells (PC3) were treated with various concentrations of morphine and an MTT assay was used to assess cytotoxicity at different incubation periods.

2. Cytokine release

An ELISA assay was used to assess the release of the pro-inflammatory cytokines IL-6, IL-8 and IL-1β from PC3 cells upon incubation with TNF-α with or without pre-incubation with morphine.

3. Cell signalling

Assessed using a specific Proteome Profiler Human Phospho-Kinase Array Kit.

Results: 1. Cell proliferation

Morphine exerted a significant cytotoxic effect on PC3 cells (Figure 1A).

2. Cytokine release

TNF-α induced a significant release of the proinflammatory cytokines IL-1β, IL-6 and IL-8 from PC3 cells. This was significantly inhibited by pre-incubation with morphine (Figure 1B).

3. Cell signalling

TNF-α induced a significant increase in the phosphorylation levels of protein kinases (Akt1/2/3, p53 and GSK-3β) which was significantly inhibited upon pre-incubation with morphine

Conclusions: 1. Morphine inhibits

a. the proliferation of PC3 cells

b. the induced release of proinflammatory cytokines via effects on the phosphorylation levels of intracellular protein kinases

2. This lends support to the claim that morphine can be used in PCa patients without oncological detriment

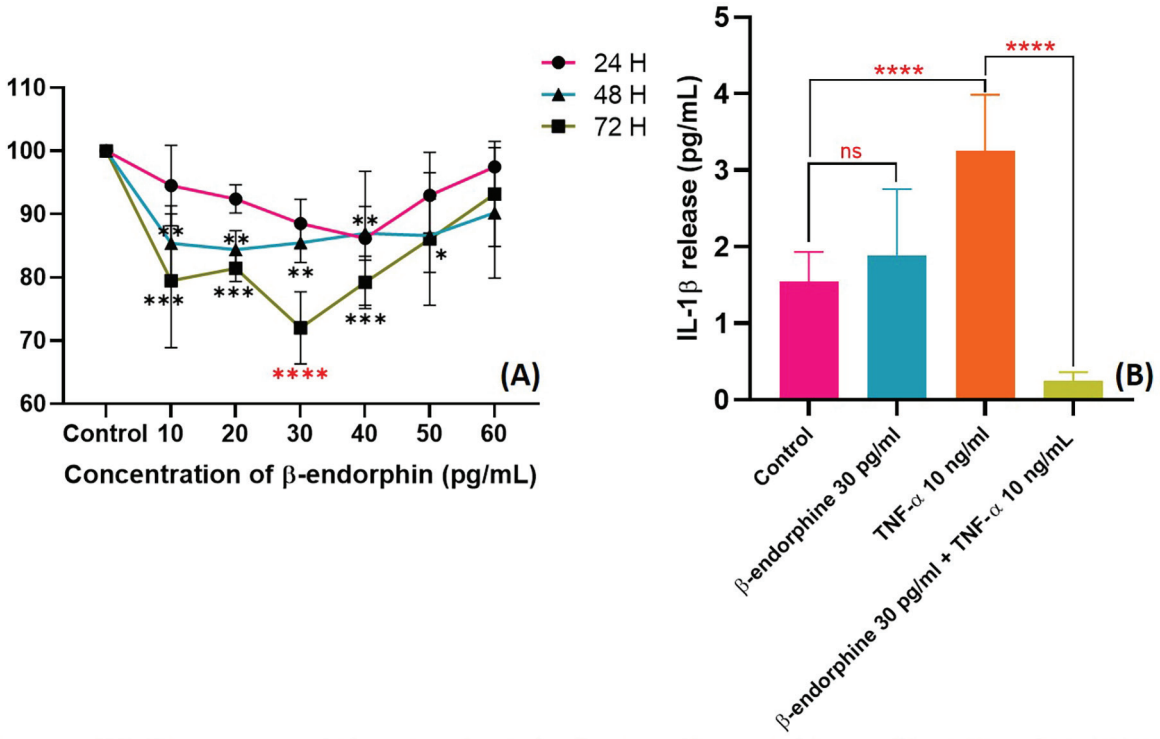

Figure 1 (A) Effect of various concentrations of β-endorphin treatments for 24, 48, and 72 hours on the viability of PC3 cells. Data are expressed as means ± SEM. * = *P<0.05*, ** = *P<0.01*, *** = *P<0.001* and **** = *P<0.0001* compared to control cultures. (B) The effect of β-endorphin pre-incubation on the release of the cytokines IL-1β by PC3 cells upon 24-hour treatment with TNF-α. Data are expressed as means ± SEM. ns = *P>0.05* and **** = *P<0.0001* compared to control cultures.

Gallery Poster Display 1 Prostate Cancer, Monday 24 June, 1015-1100, Hall 3 Exhibition Gallery Level

GP1-1 Does inhalational methoxyflurane (Penthrox®) improve pain control during local anaesthetic transperineal biopsy of the prostate?

Miss Danielle Whiting[1], Azka Yousaf, Mr Constantinos Adamou, Mr Danny Darlington, Mr Dimitrios Papadopoulos, Mr Umberto Carbonara, Mr Murthy Kusuma, Mr Krishna Patil, Mr Dimitrios Moschonas, Mr Matthew Perry, Mr Wissam Abou Chedid
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Introduction: Transperineal biopsy of the prostate is commonly performed under local anaesthetic. For some men the procedure can be uncomfortable and others may be discouraged from undergoing the procedure for fear of pain. Inhalational methoxyflurane (Penthrox®) is already used in other medical procedures to provide quick temporary analgesia. The aim of this project was to assess whether the use of Penthrox® could improve pain control during local anaesthetic transperineal biopsy of the prostate.

Materials and Methods: Between January and September 2023 all patients undergoing a local anaesthetic transperineal biopsy of the prostate answered a questionnaire about pain control at different stages during and after their procedure. From May 2023 all patients without contraindications for its use received Penthrox® in addition to local anaesthetic. Results were then compared.

Results: 162 patients underwent local anaesthetic transperineal biopsy of the prostate during the study period of which 46 (28.4%) used Penthrox®. There was no statistically significant difference in the level of pain during the local anaesthetic injection to skin (p=0.37), during the periprostatic block (p=0.32), during biopsies (p=0.17) or at the end of procedure (p=0.26) with the use of Penthrox®. There was also no significant difference in the overall satisfaction of pain control scored with the use of Penthrox® (p=0.46) or the satisfaction of the overall biopsy experience (p=0.44).

Conclusion: In this preliminary study Penthrox® did not improve pain control during a local anaesthetic transperineal prostate biopsy. Overall pain control and satisfaction levels are high with the use of local anaesthetic alone.

GP1-2 Did the robot (and centralisation) improve margin rates, and has this influenced PSA recurrence in organ-confined prostate cancer?

Mr Ibrahim Ibrahim[1], Dr Sanjana Ilangovan[1], Dr Melanie Sneddon[1], Ms Sarika Nalagatla[1], Ms Carol Marshall[1], Professor Imran Ahmad[1]
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Introduction: Radical prostatectomy (RP) in the West of Scotland region (population of 3 million) was centralized to a single hospital following the implementation of the Da Vinci Xi robotic system. This study aims to assess its impact on positive surgical margin (PSM) rates and biochemical recurrence (BCR) in organ-confined prostate cancer.
Materials and Methods: A retrospective analysis covered all RP cases in the West of Scotland from January 2013 to January 2023, focusing on patients with pathological T2 prostate cancer. We examined PSM presence, location, extent, Gleason scores, and subsequent BCR rates, comparing robot-assisted (RALP) and historical open radical prostatectomy (ORP).
Results: 1708 patients were recorded to have RP, 488 (29%) with ORP and 1220 (71%) with RALP. Prior to centralisation there were 5 hospitals performing RP with 8 surgeons. The average consultant volume per year was 20. With centralisation, RALP has been performed by 3 surgeons with an average consultant volume of 58.
907 (53%) RP patients had pT2 PC, 245 from ORP, and 662 from RALP.
PSM was found in 18% of ORP cases, and 18% of RALP cases (p=0.924). 5% had BCR in the ORP PSM patients compared to 5% who had RALP (p=0.426).
Conclusions: Comparing RALP and ORP in pT2 disease, we observed no significant prognostic differences in PSMs or BCR. Centralisation of services had no impact on PSM in pT2 PC.

GP1-3 Justified Risks or Risky Justifications: Outcomes of locally advanced prostate cancer patients who underwent radical prostatectomy

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Introduction: Although targeted radiotherapy and novel hormonal agents achieve good oncological outcomes in patients with locally advanced prostate cancer, their impact on sexual function and gastrointestinal toxicity are significant. We evaluate the oncological and functional outcomes of patients with locally advanced prostate cancer who underwent radical prostatectomy in a single institution centre.
Materials and Methods: Between 2015 and 2020, 343 men with locally advanced prostate cancer, as defined by clinical or radiological staging, who underwent radical prostatectomy from a single UK centre were followed up prospectively. The perioperative data of patients were analysed, including baseline data, pathology, survival, continence and potency outcomes.
Results: The median age of patient was 60 years (IQR: 56, 63). Median PSA was 7.95ng/ml (5.7, 12). Median follow-up was 36 months (IQR28,44). 58(16.9%) patients had positive margins. 113(32.9%) patients underwent adjuvant or salvage radiotherapy with or without antiandrogen therapy. This was partially attributed to the surgeries preceding the era of the RADICALS trial. 341 (99.4%) of these patients achieved immediate full continence. 205(59.8)% patients reported achieving full potency, with the aid of a combination of vacuum pumps, and pharmacological agents.
Conclusion: The data suggest that radical surgery for locally advanced prostate cancer can be performed while avoiding the need for adjuvant treatment in a majority of the patient. Good functional outcomes can also be achieved without the compromise of oncological outcomes. Further studies should be performed to ascertain the presence of decision regret in these patients.

GP1-4 Evaluation of Spinal vs Non-spinal anaesthetic regime in day-case Robotic Assisted Radical Prostatectomy

Mr Dimitrios Papadopoulos[1], Mr Danny Darlington Carbin[1], Dr Piers Johnston[1], Dr Zara Edwards[1], Mr Krishna Patil[1], Mr James Hicks[1], Mr Murthy Venkata Kusuma, Mr Dimitrios Moschonas[1], Mr Matthew James Alexander Perry[1], Mr Wissam Abou Chedid[1]
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Introduction: A day case protocol RARP aiming to minimise the hospital stay and the NHS cost has been introduced by our department with success over the last 18 months. For patients fulfilling the day case criteria, a combination of general anaesthesia with spinal versus general anaesthesia solely, has been utilise. We aim to evaluate the effect of the anaesthesia type delivered concerning the ability of the patient to proceed with a safe discharge as per the day case protocol.
Methods and Material: Data was prospectively collected for patients deemed suitable for a day-case RARP between July 2023 and January 2024. The decision for

non-spinal versus spinal regime was at the anaesthetist's discretion. The patient's pain, dizziness and ability to mobilise independently were assessed post-operatively.

Results: 52 patients were enrolled in the study group. 29 (55%) had general anaesthetic versus 23 (44%) who were delivered a combined spinal and general anaesthetic. 27 (93%) from the non-spinal arm were able to be discharged safely as per the protocol as opposed to 22 (95%) from the second arm. The pain and dizziness levels were 1.3/5 and 0.8/3 for the first arm and 1.5/5 and 0.6/3 for the second.

Conclusion: The use of spinal anaesthetic does not seem to affect the patient's fitness for discharge as per the day-case protocol. It seems to have minimised the pain levels and has not resulted in increased dizziness affecting their consciousness or restricting their mobility. Both spinal and non-spinal approaches can be considered safe for day-case RARPs.

Appendix 1

Pain scale 0-5:

0 – nil pain
1- Dull ache
2- Mild pain
3- Painful
4- Very painful
5- Unbearable pain

Dizziness scale 0-3:

0 – No dizziness – able to mobilise independently
1 – Mild dizziness – nil support required in mobilisation – dizziness settled spontaneously
2 – Moderate dizziness – able to mobilise but had to sit a few minutes later
3 – Severe dizziness – not able to stand or mobilise

Appendix 2

Spinal vs Non Spinal regime

Non-Spinal Pathway

1. Propofol TCI with Remifentanil + Rocuronium 0.6mg/kg
2. Antibiotics - 1.5g Cefuroxime/120mg Gentamicin on induction
3. Antiemetics - Dexamethasone 6.6mg post-induction, Ondansetron 4mg 30 minutes prior to emergence
4. Diclofenac 100mg PR prior to first incision unless contra-indicated
5. IV Paracetamol 1g post induction
6. IV s-Ketamine 125mcg/kg bolus on induction
7. IV Magnesium 50 mg/kg over 15 minutes post-induction
8. IV Tranexamic Acid 1g post induction
9. IV Morphine 0.1-0.2 mg/kg post completion of urethrovesical anastomosis
10. Restrictive fluid regime (<10ml/kg)
11. 40 mls 0.25% L-Bupivicaine into the bladder after leak test, spigot for 20 minutes and then release prior to leaving theatre
12. Local Anaesthetic infiltration by surgeon 20 mls 0.25% L-Bupivacaine (Max 2mg/kgtotal dose)

Spinal Pathway

1. Awake Single Shot Spinal 3-4ml (7.5-10mg) of 0.25% L-bupivicaine + 300mcg diamorphine
2. Propofol TCI with Remifentanil + Rocuronium 0.6mg/kg
3. Phenylephrine infusion as required
4. Antibiotics - 1.5g Cefuroxime/120mg Gentamicin on induction
5. Antiemetics - Dexamethasone 6.6mg post-induction, Ondansetron 4mg 30 minutes prior to emergence
6. Diclofenac 100mg PR prior to first incision unless contra-indicated
7. IV Paracetamol 1g post induction
8. IV Magnesium 50 mg/kg over 15 minutes post-induction
9. IV Tranexamic Acid 1g post induction
10. Restrictive fluid regime (<10ml/kg)
11. 40 mls 0.25% L-Bupivicaine into the bladder after leak test, spigot for 20 minutes and then release prior to leaving theatre
12. Local Anaesthetic infiltration by surgeon 20 mls 0.25% L-Bupivacaine (Max 2mg/kg total dose)

GP1-5 The PI-RADS 3 lesion: Pi-RADS alone oversimplifies decision-to-biopsy but what should the ideal nomogram include?

Miss Madhavi Natarajan[1], Dr Azka Yousaf[1], Dr Santiago Uribe[1], Mr Umberto Carbonara[1], Mr Wissam Abou-Chedid[1], Mr Dimitrios Moschonas[1], Mr Krishnaji Patil[1], Mr Murthy Kusuma[1], Mr Matthew Perry[1]
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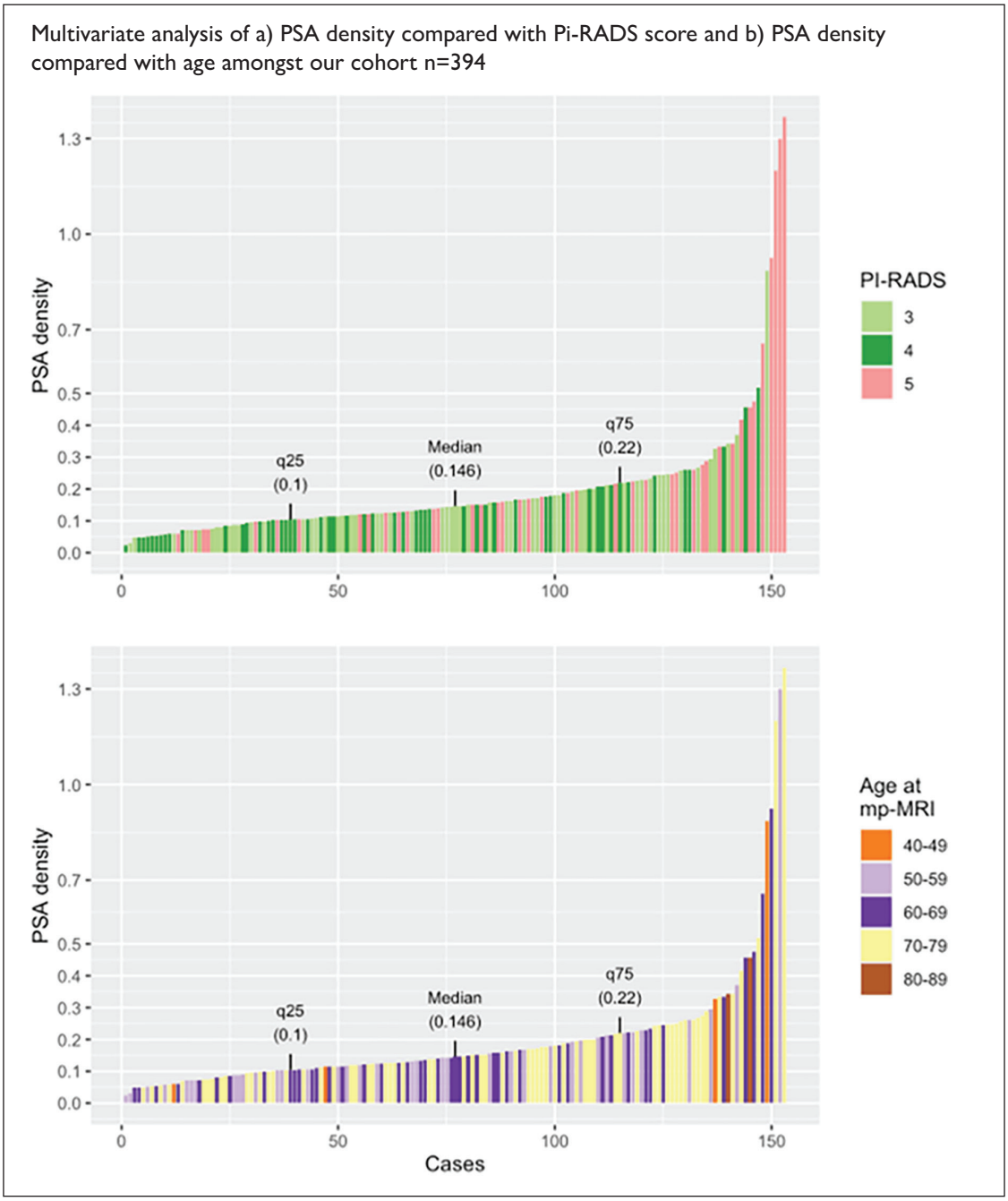
Introduction: Diagnosis of clinically significant prostate cancer (CSPC), defined as Gleason ⩾3+4 or ⩾ISUP 2, is underpinned by Prostate Imaging-Report and Data System (PI-RADS) scoring on MRI and serum PSA, and confirmed with biopsy. Positive predictive value of Pi-RADS 3 for CSPC is quoted as 13%. Although there is no established guidance for justifying biopsy vs. PSA monitoring for Pi-RADS 3, PSA-density (PSA-D) is commonly utilised.

Materials and Methods: Retrospective analysis of MRI, PSA and pathology results for consecutive patients investigated for prostate cancer between November 2021 and June 2022.

Results: 394 males were included [33% aged 60-69, 38% aged 70-79]. MRIs reported 65% PI-RADS 3; 180 (73.1%) patients with PiRADS-3 lesions did not have biopsy whilst

Multivariate analysis of a) PSA density compared with Pi-RADS score and b) PSA density compared with age amongst our cohort n=394



66 (26.8%) did. On multivariate analysis, the diagnosis of clinically significant cancer increased with age (18% amongst ages 50-59 vs. 49% amongst ages 70-79 (p 0.003)) and correlated with increased Pi-RADS score (26% amongst Pi-RADS 3, 36% amongst Pi-RADS 5 ($p<0.001$)). For all patients with CSPC, median PSA-D was 0.17 (IQR: 0.12-0.22) vs 0.12 (IQR:0.08-0.16) for non-CSPC ($p<0.001$). For diagnosis of all cancer, median PSA-D was 0.146 (IQR: 0.1-0.22).
Conclusions: 61% biopsies carried out in this cohort revealed benign or non-CSPC histology. We propose application of a validated risk-adapted biopsy decision tool that considers PSA-density, Pi-RADS and age when recommending biopsy for MRI reported PI-RADS 3 to reduce potential overdiagnosis of non-CSPC. Furthermore, it is important to establish a strategy for PSA monitoring for patients with Pi-RADS score of 3 and low PSA-D.

GP1-6 Prostate cancer and multiparametric MRI scanning: Is a bone scan still required?

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Introduction: The presence of metastases in prostate cancer impacts prognosis and treatments. CT and 99mTc-bone scans are widely used for staging. PSMA PET-CT is yet to be well integrated into guidelines. Diagnostic yield for bone scan correlates with PSA level and ISUP grade.
mpMRI prostate as a primary diagnostic investigation has been posited as a tool to evaluate for nodal disease, but provides only modest benefit over CT.
Here, we assess if mpMRI reliably detects bony metastases in prostate cancer, given known caudocranial pattern of spread.
Patients and Methods: Patients having bone scan in 2-year period (April 2021 - March 2023) were identified. Included were patients having bone scan after MRI or CT, considered fit for treatment with curative intent or ADT with chemotherapy. Excluded were performance status >1. 106 patients identified, 70 were included.
Results: 85.9% (n=55) of MRI scans concurred with bone scan assessment of skeletal metastasis (49 negative and 6 positive), 3.1% (n=2) missed skeletal metastasis and 9.4% (n=6) was indeterminate. In the indeterminate cohort, 5 were negative for metastasis on bone scan. All CT scans (n=6) concurred with bone scan (2 negative and 4 positive) assessment of skeletal metastasis.
The sensitivity and specificity of mpMRI was 85.7% and 98% respectively for bony metastases. NPV of mpMRI was 96.1%.
Conclusions: The use of mpMRI to evaluate for skeletal metastases appears promising. There was no evidence of appendicular skeletal metastasis without lumbo-sacral metastasis. Further work should address whether extending mpMRI field to thoracic spine increases diagnostic yield.

GP1-7 Radiogenomics map-based molecular and imaging phenotypical characterization in localised prostate cancer using pre-biopsy biparametric MR imaging

Miss Abeer Al-hussaini, Dr Chidozie Ogbonnaya, Dr Neil Kernohan, Professor Ghulam Nabi[1]
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Objective: To create a radiogenomics map and evaluate the correlation between molecular and imaging phenotypes in localized prostate cancer (PCa), using radical prostatectomy histopathology as a reference standard.
Methods: Radiomic features were extracted from T2-weighted (T2WI) and Apparent Diffusion Coefficient (ADC) images of clinically localized PCa patients (n=15) across different Gleason score-based risk categories. DNA extraction was performed on formalin-fixed, paraffin-embedded (FFPE) samples. Gene expression analysis of androgen receptor expression, apoptosis, and hypoxia was conducted using the Chromosome Analysis Suite (ChAS) application and OSCHIP files. The relationship between gene expression alterations and textural features was assessed using Pearson's correlation analysis. Receiver operating characteristic (ROC) analysis was utilized to evaluate the predictive accuracy of the model.
Results: A significant correlation was observed between radiomic texture features and copy number variation (CNV) of genes associated with apoptosis, hypoxia, and androgen receptor (p-value= $\leqslant 0.05$). The identified radiomic features, including Sum Entropy ADC, Inverse Difference ADC, Sum Variance T2WI, Entropy T2WI, Difference Variance T2WI, and Angular Secondary Moment T2WI, exhibited potential for predicting cancer grade and biological processes such as apoptosis and hypoxia. Incorporating radiomics and genomics into a prediction model significantly improved the prediction of prostate cancer grade (clinically significant prostate cancer), yielding an AUC of 0.95.
Conclusion: Radiomic texture features significantly correlate with genotypes for apoptosis, hypoxia, and androgen receptor expression in localised prostate cancer. Integration of these into prediction model improved prediction accuracy of clinically significant prostate cancer.

GP1-8 Local anaesthetic trans-perineal biopsy of the prostate for patients with no rectum

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Introduction: Prostate cancer is diagnosis in men with previous rectum excision is challenging. Whilst prostate biopsy remains the gold standard, the traditional rectal ultrasound-guided biopsy is not possible in these men. Several techniques have been reported in the literature,

Table 1. Demographic variables and outcomes.

Age (mean)	76.6 years (range 66-80 years)
PSA (mean)	21 ng/ml (range 9.3-50 ng/ml)
Prostate volume (MRI) (mean)	44.2 cc (range 30-48 cc)
PIRADS score	
5	4 (66.6%)
4	1 (16.6%)
3	1 (16.6%)
Location of lesion	
Anterior	2 (33.3%)
Posterior	1 (16.6%)
Apex	1 (16.6%)
Right lobe	2 (33.3%)
Indication of APR	
Colitis	2 (33.3%)
Rectal cancer	3 (50.0%)
Crohn's disease	1 (16.6%)
Prostate cancer	
Yes	3 (50.0%)
No	3 (50.0%)
Number of cores taken (mean)	15.3 (range 4-24)
Number of Target taken (mean)	4 (range 0-6)
Number of cores positive (mean)	3.3 (range 0-12)
Number of Target positive (mean)	2.1 (range 0-6)
Highest GG	
2	1
3	1
5	1
Pain score (median)	1 (range 0-4)
Definitive treatment	
PSA surveillance	2 (33.3%)
Radiotherapy	2 (33.3%)
ADT	1 (16.6%)
Awaited	1 (16.6%)
Follow up duration (median)	8.5 months

including trans-gluteal, trans-perineal and trans-urethral prostate biopsies, generally, these are performed alongside CT and ultrasound guidance and often under a general anaesthetic (1–4). Our case series demonstrates that local anaesthetic trans-perineal prostate biopsy with ultrasound guidance is a feasible approach.

Methods: Prostate biopsies were taken under local anaesthetic through a trans-perineal route using the linear ultrasound probe pressed against the perineum at an angle to visualise the gland. The prostate was biopsied using a modified Ginsburg template.

Results: Six men had prostate biopsies between Dec 2021 and July 2023. The mean age, PSA level and prostate volume were 76.6 years (range 66-80), 21 ng/ml (range 9.3-50ng/ml) and 44.2cc (range 30-48cc). The PIRAD score was $>$ 3 in all cases and located in different prostate parts. The mean number of cores taken was 15.3 while the mean positive cores were 3.3. Median Pain score was 1 (range 0-4). Prostate cancer was diagnosed in 3 of 6 patients (50%). All patients had clinically significant prostate cancer i.e. Grade group $>$ 2. No complications were noted on a median follow-up of 8.5 months.

Conclusion: Prostate biopsy in patients with surgically removed rectum is feasible under local anaesthetic using an ultrasound probe against the perineal skin with acceptable diagnostic yield.

Gallery Poster Display 2 Bladder Cancer, Tuesday 25 June, 1100-1130, Hall 3 Exhibition Gallery Level

GP2-9 Investigation of sexual function and oncological outcomes following prostate capsule- and nerve-sparing robot-assisted radical cystectomy

Dr Lazaros Tzelves[1], Dr Elizabeth Day[1], Mr Amit Bhudia[1], Mr Mark Markov[1], Dr Osama Al-Bermani[1], Dr Joanna Olphert[1], Mr Ashwin Sridhar[1], Professor John Kelly[1], Dr Anthony Ta[1]

[1]Department of Urology, University College London Hospitals, London, United Kingdom

Introduction: The removal of the prostate capsule and neurovascular bundle during robot-assisted radical cystectomy (RARC) for bladder cancer adversely impacts male sexual function. Approaches to safely improve functional outcomes are therefore sought. This study explores the outcomes of prostate capsule- and nerve-sparing RARC approaches.

Patients and Methods: We conducted a retrospective review of baseline and postoperative sexual function (IIEF-5) in 40 organ-sparing RARC patients. Prostate capsule-sparing RARC eligibility included absence of suspicious lesions on pelvic MRI or Likert $\leqslant$ 3 lesions with PSA density $<$ 0.15 ng/ml^2. Exclusion criteria comprised of PCa diagnosis, T4 disease, prostatic urethral carcinoma in-situ, severe baseline erectile dysfunction, or follow-up $<$ 12 months post-surgery.

Results: We reviewed 40 patients (15 capsule sparing, 10 capsule/vesicle sparing, and 15 nerve-sparing RARCs). Median follow-up was 27 and 36 months for capsule and nerve-sparing groups, respectively. Postoperatively, capsule-sparing patients reported superior IIEF-5 functional outcomes (14 vs 7, $p = 0.016$) with less function attrition (-3 vs -14 change, $p = 0.028$). The nerve-sparing group

was older (66 vs 55y/o, p=0.001). Age was a significant predictor of a high postoperative IIEF score in multivariate analysis (OR = 0.89, 95% C.I. 0.89-0.98, p=0.024). Preliminary investigations showed no significant differences in PCa, positive margins, or further postoperative investigation between groups.

Conclusion: Despite participant limitations, median-term follow-up indicates increased sexual function retention, especially in prostate capsule-sparing RARC, without adverse effects on oncological outcomes. After appropriate assessment and alignment with patient priorities, sexual function preserving techniques should be considered in men undergoing RARC.

GP2-10 Age-Related Differences in Outcomes of Patients with Non-Muscle-Invasive Bladder Cancer: A Biological Basis for Epidemiological Disparities?

Miss Niyati Lobo[1], Dr Zhigang Duan[2], Dr Akshay Sood[2], Dr Sia Lindskrog[3], Professor Lars Dyrskjøt[3], Dr Hui Zhao[2], Dr Stephen B. Williams[4], Dr Sharon H. Giordano[2], Professor Ashish M. Kamat[2]

[1]Royal Free London NHS Foundation Trust, London, United Kingdom, [2]University of Texas MD Anderson Cancer Center, Houston, United States of America, [3]Aarhus University, Aarhus, Denmark, [4]University of Texas Medical Branch, Galveston, United States of America

Introduction: Age disparity in patients with non-muscle-invasive bladder cancer (NMIBC) exists. Whether this is due to differences in cancer care or tumour biology is unclear. We investigated age disparities in NMIBC using individual patient-level data from the SEER-Medicare and UROMOL datasets.

Materials and Methods: SEER-Medicare linked data was used to identify patients, aged ⩾66 years, with stage cTa-T1 NMIBC between 2005-2019 (n=32 225). Multivariable competing-risks Cox regression analyses were used to examine the association between age and recurrence, progression and bladder cancer-specific mortality (BCSM) after adjusting for demographic-, cancer- and treatment-related variables. Using the UROMOL cohort (n=834), age disparities across transcriptomic, genomic and proteomic domains were assessed.

Results: Analysis of the SEER-Medicare cohort revealed 5-year recurrence rates of 55.2%, 57.4% and 58.9% in patients aged 66-70yrs, 71-80yrs and ⩾81yrs, respectively; 5-year progression rates of 25.6%, 29.2% and 36.9%, respectively; and 5-year BCSM rates of 3.9%, 5.8% and 11.8%, respectively. After multivariable adjustment, age ⩾ 81yrs was associated with a higher risk of recurrence (HR 1.07, 95% CI 1.03-1.12; p=0.001), progression (HR 1.32, p<0.001) and BCSM (HR 2.58, p<0.001). UROMOL2021 transcriptomic class 2a was most frequently observed in patients with advanced age (34.0% in ⩾76yrs vs. 21.6% in ⩽65yrs; p=0.004), a finding confirmed on multivariable analysis (RR 3.86, p=0.002). UROMOL2021 genomic class 3 was more frequently observed in patients ⩾76yrs (4.9% vs. 24.2%; p=0.001).

Conclusions: Among SEER-Medicare patients with NMIBC, advanced age is associated with inferior oncological outcomes. These results reflect age-related molecular biological differences observed across transcriptomic and genomic domains.

GP2-11 Compliance and outcomes following risk-adapted changes to national Quality Performance Indicators (QPIs) for NMIBC

Professor Paramananthan Mariappan[1], Mr Mathew Trail[3,4], Mr Allan Johnston[5], Ms Lucy Drummond[6], Mrs Claire Sharpe[7], Mr Sami Hamid[4], Mr Barend A Dreyer[6], Ms Sara Ramsey[8], Dr Luisa Padovani[3], Ms Roberta Garau[3], Dr Alasdair Boden[9], Mr Gianluca Maresca[10], Mr Rami Hasan[3,11], Mr Graham Hollins[11], Mr Benjamin G Thomas[3,12], Mr Angus Reid[13], Mr Lucas Ho[13], Ms Julia Guerrero Enriquez[13], Mr Saad Siddiqui[10], Mr Muhammad Arshad Khalil[10], Ms Helen Simpson[6], Mr Suriaraj Karppaya[1], Mr Jaimin Bhatt[5], Professor Imran Ahmad[5,14], Mr Ghulam M Nandwani[4], Mr Altaf H Chaudhry[7], Mr Rehan S Khan[9], Mr Ross Clark[11], Mr Konstantinos Dimitropoulos[10], Dr Catriona Graham[15], Mr David Hendry[5], The Scottish Bladder Cancer QPI collaborative

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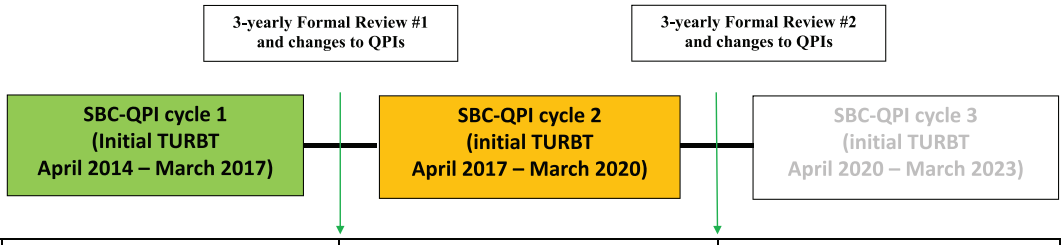
Introduction: Accompanying continuous audit and feedback, the governance framework underpinning Scotland's Bladder Cancer (BC) Quality Performance Indicator (QPI) programme includes a formal review following every 3-year cycle with appropriate modifications to the QPIs, ensuring they remain relevant and responsive to developing evidence.

Figure 1: Scottish Bladder Cancer QPI cycles and compliance to selected NMIBC QPIs in collaborating centres



	SBC-QPI-C1	SBC-QPI-C2	SBC-QPI-C3
Total patients *	3,899	4,133	Ongoing analysis
Pathological NMIBC	2,733	2,980	Ongoing analysis
Use of standard Bladder Proforma	2,153/2773 (78%)	2,622/2980 (88%)	Ongoing analysis
Sampling DM in HG-NMIBC	943/1305 (72%)	1018/1380 (74%)	Ongoing analysis
SI-MMC in LGTa	1085/1468 (74%)	1045/1447 (72%)	Ongoing analysis

* From 12 centres in the collaborative

This analysis compares compliance and consequent outcomes between cycle 2 (SBC-QPI-C2) and cycle 1 (SBC-QPI-C1), involving patients with NMIBC undergoing the initial TURBT between April 2017-Mar 2020 and April 2014-Mar 2017, respectively.

Materials and Methods: Changes to NMIBC QPIs between cycles include emphasising: (a) Detrusor Muscle (DM) sampling in High Grade (HG) NMIBC instead of all NMIBC; (b) Single immediate instillation of Mitomycin-C (SI-MMC) in low grade Ta instead of all NMIBC; (c) re-TURBT in selected HG-NMIBC instead of all HG-NMIBC. Health Boards collected data prospectively, while clinicians recorded follow up variables. Both were pooled from 12 collaborating centres, representing >90% of Scotland's patients.

Results: From a total of 8,032 new BC patients, 3,899 and 4,133 were in SBC-QPI-C1 and SBC-QPI-C2, respectively. Pathology from the initial TURBT revealed 2,773 and 2,980 NMIBC, in respective cohorts.

The use of a standard proforma for documenting tumour characteristics increased from 77.6% to 87.9% (OR=2.1, 95%CI=1.8-2.4, p<0.001).

Figure 1 reveals compliance to DM and SI-MMC between cycles. Preliminary analysis did not reveal significant differences in recurrence and progression between cycles.

Conclusions: Taking a more nuanced approach within Scotland's QPIs for NMIBC appears not to have adversely affected compliance nor outcomes. Further work is being done to facilitate meeting the new targets.

GP2-12 Cancer following reconstruction for benign urological conditions: Case series and systematic review to describe management and outcomes

Dr Alisha Pati-Alam[1], Miss Elizabeth Day[1], Miss Hyka Shaikh, Dr Anastasia Frost[1], Mr Ashwin Sridhar[1], Professor John Kelly[1], Professor Anthony Mundy[1], Mr Jeremy Ockrim[1], Miss Tamsin Greenwell[1], Mr Anthony Oluwaseun Noah[1]

[1]University College Hospital, London, London, United Kingdom

Background: Malignancy within urological reconstruction is well-recognised, but uncommon. To date, literature has focused on cancer incidence. Our case series, collated with a systematic review, reports management and outcomes to highlight key clinical considerations in this cohort.

Methods: A systematic review was undertaken in July 2023 according to PRISMA guidelines; studies reporting on patients with malignancy within reconstructions for benign disease with management and follow-up information were included. A single-centre retrospective analysis was performed with the same patient inclusion criteria and consolidated with the systematic review results; cases were identified using clinical database and SNOMED code searches.

Results: 81 patients were included: the systematic review identified 70 patients from 37 studies; our case series identified 11 patients. Median follow-up was 10 months

PATIENTS	N (%)
Patient characteristics	
Male / Female	49 (60%) / 32 (40%)
Median age at diagnosis, range (years)	44, 3-87
Median time from reconstruction to diagnosis, range (years)	24.5, 2-59
Reason for reconstruction	
Bladder exstrophy / other congenital	17 (21%)
Infective (TB / Schistosomiasis)	19 (23%)
Neurogenic and idiopathic bladder dysfunction	26 (32%)
Other	9 (11%)
Unknown	10 (12%)
Reason for presentation	
Symptomatic	50 (62%)
USS / Cystoscopic surveillance	6 (7%)
Other – PSA screening, incidental on imaging	3 (4%)
Unknown	22 (27%)

CANCER	N (%)
Disease site	
Conduit	12 (15%)
Cystoplasty	54 (67%)
Mitrofanoff	3 (4%)
Native bladder	7 (9%)
Other	5 (6%)
Tumour type	
Adenocarcinoma	49 (60%)
Squamous cell carcinoma	10 (12%)
Transitional cell carcinoma	14 (17%)
Other	8 (10%)
Stage at presentation	
Non-muscle invasive / Muscle invasive / Unknown	10 (12%) / 57 (70%) / 14 (17%)
N0 / N+ / Unknown	38 (47%) / 20 (25%) / 22 (27%)
M0 / M+ / Unknown	56 (69%) / 10 (12%) / 15 (19%)

OUTCOMES	N (%)
Primary treatment (metastatic excluded)	
Endoscopic / TURBT	5 (7%)
Partial / Radical cystectomy	5 (7%) /41 (58%)
Other excision	14 (20%)
Chemo / Radiotherapy	4 (6%)
Palliation	2 (3%)
Outcomes	
Cancer death	24
Median time from diagnosis to death, range (months)	8, 1-22
Progression to metastatic disease	12

(range 1-63). Patient and tumour characteristics, treatments and outcomes are summarised in Table 1.

Surgery was the most common primary treatment in non-metastatic disease; 60% underwent open or robotic-assisted radical cystectomy. Urinary diversion was achieved in numerous ways, most commonly an ileal conduit followed by cutaneous ureterostomies. Neo-adjuvant and adjuvant oncological treatment was also described. Endoscopic resection was used in 5 cases, including within a rectal bladder, cystoplasty segment, and native bladder adjacent to cystoplasty.

In the overall cohort, cancer-specific survival (CSS) was 70%. In the organ-confined disease (⩽T3 N0 M0), CSS was 91%.

Conclusion: This review collates treatment options and outcomes of patients with malignancy within urological reconstruction described to date. It is limited by short median follow-up but provides additional information to clinicians and patients.

GP2-13 Female Sexual Function after Radical Cystectomy: a cross-sectional study

Miss Riya Sabharwal, Mr Santosh Nagasubramian, Ms Elizabeth Day, Mr Anthony Ta, Mr Ashwin Sridhar, Professor John Kelly

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Introduction: Sexual dysfunction is a consequence of radical cystectomy (RC). A gender bias exists in our understanding of the extent and impact of this on women. This study aims to describe female sexual function and vaginal symptoms following cystectomy.

Patients and Methods: All female patients undergoing RC between Jan 2017 and Dec 2022 at a single institution were identified. Patient, disease and surgical characteristics were retrieved from the electronic healthcare record. Organ-sparing was defined as uterine +/- ovarian preservation. The Female Sexual Function Index- 6 (FSFI-6) and Pelvic Organ Prolapse Distress Inventory 6 (POPDI-6) questionnaires were self-administered. A cut of 19 for FSFI-6 was used as normal sexual function.

Results: 86 patients were contactable of which 31 (36%) responded to the questionnaires (Table). Overall, 6 women (19%) were sexually active. 13 women (42%) report sexual desire. 5 women (15%) has sought treatment for vaginal symptoms. Vaginal discharge and vaginal bulge was reported by 6 (19%) and 15 (62%) respectively. Statistical comparison between surgical approaches was not possible due to small numbers in the groups.

Conclusions: Sexual function appears an important component of the survivorship following RC. Over 40% of women report sexual desire with none having normal sexual function. Although the data is limited by the absence of pre-op information, it can be used to tailor patient information, guide post-operative consultation and develop support services.

Table

Patient Characteristics			Sexual function		
	n	%		n	%
Number Patients	31		**FSFI-6**	31 respondents	
Median Age	69		Sexually active before surgery	10	0.32
Age range	42-89		Sexually active after surgery	6	0.19
Neobladder	4		Sexual desire	13	0.42
Ileal Conduit	27		Of those that are sexually active		
Robotic	26		Normal function*	0	0.00
Open	5		Pain on sexual activity	3	0.10
Disease Characteristics			Vaginal health		
T stage			Vaginal discharge	6	0.19
T0	5	0.16	Sought treatment for vaginal symptoms	5	0.16
Tis/Ta/T1	8	0.26	**POPDI-6**	29 respondents	
T2	12	0.39	Bulge in vagina (score 1 or more)	18	0.62
T3/T4	6	0.19	Need for digital pressure to evacuate bowels (score 1 or more)	17	0.59

*Score of 20 or more.

GP2-14 The 'Pluck Procedure' in a Laparoscopic Nephroureterectomy: Does it affect oncological outcomes?

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Introduction: Nephroureterectomy (NU) remains the gold-standard surgical treatment for upper urinary tract urothelial carcinoma (UTUC). With the introduction of a laparoscopic approach (LNU), the use of 'Pluck' technique to manage the lower ureter has increased (PLNU). Controversy exists regarding the oncological outcomes of PLNU, citing increased bladder recurrence rates. In our practice we use a selective approach: PLNU with early ureteric clipping below the lesion prior to tumour mobilisation for lesions above the pelvic brim with the formal open lower end (OLNU) reserved for lesions below the brim.
Methods: Retrospective data on oncological outcomes from a single surgeon's experience with LNU was reviewed. Cases were identified from surgeon logs, theatre/pathology systems and local clinical portals. Data collected included bladder recurrence (BR), metastatic disease (MD) and mortality rates (TCC and other).
Results: Over a 19-year period (2003-2023), 104 patients were identified with 3 exclusions for non-TCC pathology/incomplete ureterectomy. A PLNU was performed in 71 patients (F:M 35:36/mean age 69 [range 44-83] years) whilst 30 underwent OLNU (F:M 10:20/mean age 72 [range 55-86] years). Follow-up was taken until discharge or death with a mean of 78 [range 1-156] months. The cancer outcome data is summarised in table 1.
Conclusion: These data confirm no increase in BR or MD rates by performing a selective PLNU. They also confirm the lethal nature of metastatic TCC and the high rate of 'non-TCC' mortality during follow-up in this elderly, comorbid population.

Table 1. Summary of cancer outcomes in PLNU vs OLNU.

	PLNU	OLNU
BR	28%	40%
MD	24%	30%
TCC mortality	24%	30%
Non TCC mortality	32%	46%

Gallery Poster Display 3 Management/ Governance/Education/Quality Improvement, Tuesday 25 June, 1500-1530, Hall 3 Exhibition Gallery Level

GP3-15 PSA text message reminders to improve prostate cancer surveillance at a single centre

Dr Alisha Pati-Alam[2], Miss Sascha Ali[1], Mr Mohamed Ferdous Hussain[1], Ms Vanita Patel[1], Mr Anish Patel[1], Miss Lehana Yeo[1], Miss Jhumur Pati[1]
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Background Prostate cancer patients under active surveillance have regular PSA (Prostate-Specific Antigen) checks. At our Trust, clinic appointments were being wasted due to patients forgetting to have their blood test.
Methods: This was a closed-loop audit of patients attending clinic at a single institution in September 2022 and 2023. Audit Standard: All patients having PSA results before clinic. Intervention: Text reminder to patients to book their PSA test with a link to the phlebotomy service.
Results: First loop: 46 patients were audited; 39% (17 patients) had their PSA results in time for clinic. Of the remaining patients, 89% (25 patients) forgot to book blood tests. 3 patients were uncontactable.
Second loop: 47 patients were audited. The proportion of patients who had PSA results in time for their appointments improved to 74% (35 patients). Of the remainder, none forgot to book their PSA, but had not done so for other reasons: 2 were unwell, 4 were abroad, 2 were uncontactable, and 4 booked their blood test on the day of their clinic appointment without realising that the blood test should be done before.
Conclusion: Text reminders increase patient compliance, improving efficiency of the prostate cancer surveillance service. Following our audit, text message reminders for blood tests have since been introduced in other departments within the Trust (Endocrinology, Haematology and Oncology). For our department, there is room for improvement, for example, by ensuring correct contact details and including the date that bloods should be taken by to have results in time.

GP3-16 Audit on Faster Diagnosis Standards in 2-Week Wait (2WW) Haematuria Clinic

Dr Yamin Pa Pa Lin, Dr Ashwini Kulkarni, Ms Kate Warren
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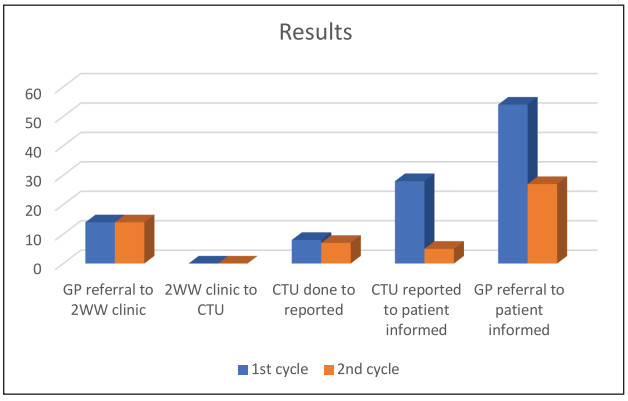
Introduction: The Faster Diagnosis Standard (FDS) has been introduced to ensure that patients have cancer diagnosed or ruled out within a maximum of 28 days from referral, for at least 75% of patients. This audit focuses on assessing and improving the time taken for diagnosis or exclusion of suspected bladder or upper tract cancer in the 2-Week Wait (2WW) Haematuria Clinic.
Methods: This quality improvement project involved a retrospective analysis of data collected from the 2WW Haematuria Clinic at our centre from February 2023 to May 2023. We analysed waiting times at key stages of the pathway to evaluate adherence to the FDS and identify areas for improvement. Data was collected in two cycles: before and after implementing the change of introducing a Cancer Clinical Nurse Specialist (CNS) led CT Urogram (CTU) results clinic.
Results: Analysis of the data from 50 patients revealed that the median time taken for diagnosis or exclusion of cancer was 54 days (range: 25 – 113 days) from the time of GP referral. Following the introduction of the CTU results clinic, data collected from another 50 patients showed that the waiting time significantly improved to a median of 27 days (range: 13 – 76 days).
Conclusion: This audit demonstrates significant improvement in the adherence to the FDS in the 2WW Haematuria Clinic, increasing from 12% previously to 60% after the introduction of the results clinic. This has resulted in timely diagnosis or reassurance of absence in cases of suspected urothelial cancer.



GP3-17 How effective is a dedicated smoking cessation service in a standard haematuria clinic?

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Introduction: Smoking is a significant risk factor for bladder cancer, with between a third and a half of bladder cancer cases attributed to it. Previously we have advised patients attending our haematuria clinic to stop smoking but recently we introduced a nurse-led health promotion consultation within the clinic with direct referral on to

existing smoking cessation services and follow-up at 3 and 6 months to assess adherence.

Patients and Methods: We followed up 50 smokers who attended this nurse-led programme in May 2023 and assessed whether they accepted and attended smoking cessation services and how effective these were over a 6-month period.

Results: 50 patients were identified, and they had smoked for between 30 to 50 years. 23 consented to referral to local smoking cessation services. 13 of these (57%) reported they had quit smoking at the 6-month follow-up point, and 4 had cut down and/or moved to vapes. The remaining 6 continued to smoke but asked to be referred back to the smoking cessation clinic again. 13 patients who declined referral reported that they were trying to cut-down themselves.

Conclusions: Although quitting smoking is a personal decision and requires self-motivation, quit rates following support from health care professionals were high, at over half of those referred to existing smoking cessation services. Interestingly, those that tried to stop but were not successful asked for re-referral on follow-up, showing the importance of on-going engagement.

GP3-18 Evaluating the clinical need for Group and Save for TURBT at a District General Hospital in London

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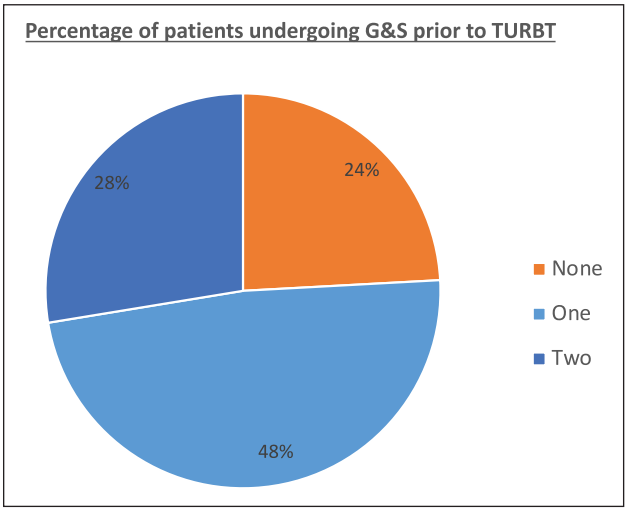
Introduction: Group and save (G&S) is often performed before Transurethral Resection of Bladder Tumour (TURBT) or Cystoscopy and bladder biopsy. The cost to process one G&S at our trust is £11.19. The aim of this audit was to determine whether there is clinical need for routine G&S prior to these procedures.

Methods: Patients undergoing TURBT, relook TURBTs and cystoscopy with bladder biopsy between January 2020 and March 2021 were included. Patient characteristics and operative findings were extracted from clinical notes. TURBTs recorded as emergency, not listed as the dominant procedure during admission, or involving >1 day stay pre-operatively were excluded.

Results: A total of 87 patients were included. Mean pre-operative haemoglobin was 137.9g/L, mean post-operative haemoglobin was 129.4g/L. 13 out of 87 patients were on anticoagulation prior to the operation. No patients required blood transfusion.

66 patients (76%) had a G&S at pre-assessment. 24 patients (28%) had a second G&S on admission. 21 patients (24%) did not have a G&S pre-operatively. All 13 anticoagulated patients had two G&S. When patients with anaemia pre-operatively were excluded (22 patients), 47 patients (72%) had a G&S at pre-assessment. 14 patients (21%) had a second G&S on admission. 18 patients (27.7%) did not have a G&S pre-operatively (Figure 1).

Conclusion: There was no requirement for blood transfusion. We propose that G&S samples are not routinely required to undertake TURBT and bladder biopsy safely and should only be requested in the presence of case-specific risk factors. This reflects departmental savings of £1005.



GP3-19 Introduction of the 'Uro-Go' grab-bag for difficult catheterisation

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Introduction: Acute Urinary retention is a urological emergency which requires rapid management for patient relief. Catheterisation is indicated for the majority of these patients; however, this may require the use of specialist urology equipment. The urology team manage these patients and the timely assessment and relief of retention is hindered by accessibility and time taken to gather equipment. As part of quality improvement, we aimed to address this issue by developing a urology grab bag 'Uro-go', which contained the equipment for a difficult catheter.

Materials and Methods: Bleeps for difficult catheters were recorded during February 2023 (n=15). Time taken to gather equipment for difficult catheters and walk to the patient's ward was recorded. Patients who required transfer to theatre for catheter insertion were also recorded (n=5).

A 'Uro-go' grab bag was introduced in May 2023. The bag was stocked and kept in the urology theatre. An AMBU screen was also available for use of flexible cystoscopy. A re-audit cycle was performed over 4 weeks in May 2023 (n-11).

Results: It took approximately 18 minutes for the Urology team to gather equipment required for difficult catheterisation and walk to the patient. The introduction of the bag cut operator time from 18minutes to 8 minutes. Patient transfer to theatre for catheter insertion reduced from 33% to 18%.
Conclusions: The introduction of the bag reduced delays to gathering equipment for catheterisation thus improving the efficiency of the on-call urology teams management of difficult catheters and the management of complex urinary retention.

GP3-20 Patient-initiated Follow up (PIFU) is a more preferable outpatient model for patients and clinician: a local Urology outpatient programme review

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Introduction: Patient initiated Follow up (PIFU) is an alternative outpatient model of the traditional follow up programme, designed to offer selected patients more control over their care. It offers more flexibility for patients desire to see clinician sooner or to schedule their appointment only for new symptoms or changes. The PIFU model has been utilised in NHS for a while, under different names as open-access follow up, supported self-management and others. We analysed our local urology PIFU programme for outcome and patients' preferences.
Materials and Methods: A pilot study on the first 100 patients listed under PIFU model and under a single Urology consultant. The median time on PIFU was 20 months (range: 17-25). We contacted patients by phone, asking those who did not have a follow up their satisfaction and understanding of the model.
Results: The cohort of a 100 patients with median age 61 years. Total respondents to our calls were 71 patients, 57 out of those had knowledge of PIFU, and respondents who knew how to contact local outpatient service were 43. Respondents who saw their GP instead were four. Only two patients utilized the PIFU model. 97% of respondents preferred PIFU to traditional follow-up.
Conclusion: Review of local outpatient practice, showed although new patient numbers remain constant, the total number of attending outpatients is increasing 7% yearly. PIFU can reduce the load on outpatient clinic for numbers of patients and potentially allow more new patients capacity. The model offers patients more preferable follow up option.

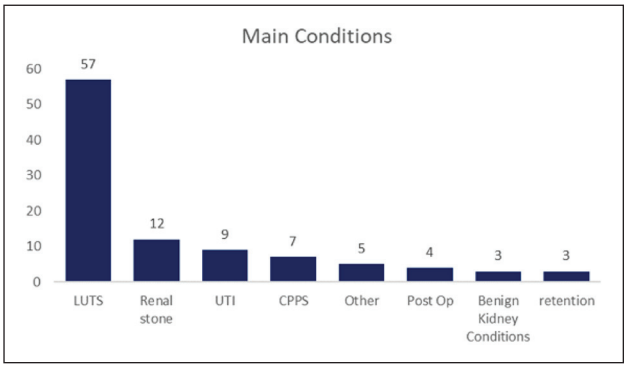

Figure 1. Main urological conditions of 100 patients on PIFU.

Gallery Poster Display 4 Stones / Imaging / Upper Tract Disorders, Wednesday 26 June, 1100-1130, Hall 3 Exhibition Gallery Level

GP4-21 Long term outcomes in Nephrocalcinosis: Comparative study between Renal Tubular Acidosis and Medullary Sponge Kidney

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Introduction & Aims Nephrocalcinosis or generalised calcification of the kidney is a commonly encountered problem in specialist stone clinics. Two common groups presenting with nephrocalcinosis are Medullary sponge kidney (MSK) and Renal tubular acidosis (RTA). In this long term cohort study from a large tertiary stone unit, we aim to compare the two groups for their clinical characteristics and outcomes with regards to decline in renal function and stone passage.
Materials and Methods: Data collected from a cohort of 27 Nephrocalcinosis patients of which 11 had RTA and 16 had MSK. Distribution of the calcification, pH of the urine, decline in GFR, stone passage and types of stone were analysed and compared between the 2 groups.
Results: Results summarised in Table 1 showed average follow up of 10.63 years in RTA compared to 9.37 years in MSK. The RTA group had proportionately higher bilateral Nephrocalcinosis with more than 3 calyces involved. The urine pH in the RTA group was significantly alkaline (7.4) compared to MSK group (6.26). Stone composition was Calcium phosphate in the RTA and calcium oxalate in the MSK group. The average eGFR decline was 1.3644/year in RTA compared to 0.423/year in the MSK group.
Conclusion: Patients with nephrocalcinosis due to RTA tend to have more severe and bilateral calcification with an alkaline pH and faster decline in eGFR in comparison to MSK group. This data would be useful to counsel the patients in clinic and predict their long term outcome and plan the need for renal support.

Table 1.

	RTA	medullary Sponge Kidney
Number of Pts	11	16
Mean Age (years)	32.8	49.25
Male/Female	2/9	12/4
Average follow up (in years)	10.63	9.37
Bilateral nephrocalcinosis	10/11	12/16
>3 Calyces	11/11	6/16
Average urine pH	7.452	6.26718
Average eGFR decline/year	1.3644/year	0.423125/year
Passed stone	Yes 7/11	Yes 11/16
Most common Stone type	Calcium phosphate	Calcium oxalate

GP4-22 Is stent on a string (SOS) the new gold standard for post-ureteroscopy ureteric drainage? Evidence from a systematic review

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Introduction: Ureteric stents are widely used throughout urological surgery, however concern over their side effects has prompted the development of alterations in their design. One of these is that of an extraction string, facilitating easy removal of the stent.
Patients and Methods: A comprehensive, PRISMA compliant systematic review of the literature was carried out using the PICO method, with the aim of answering the following clinical question: "in patients submitted to previous ureteroscopy procedures for urolithiasis, how did patients with stent-on-string (SOS, intervention) compared to stent-without-string (SWOS, comparator)?".
Results: Twenty-two studies (8382 patients), of which 3427 had a SOS inserted (20 adult,2 paediatric studies). Compared to SWOS, SOS were in situ for less time, with an average of 6.6 and 12.36 days for SOS and SWOS respectively. Further, significant cost savings, less pain on removal and high rates of safe home removal have been reported in SOS when compared to SWOS. Similarly, less urinary symptoms, better visual analogue pain (VAS) score, and readmission and emergency department visits were noted on patients with SOS. A significant drawback identified in the literature is that of stent dislodgement with SOS, with rates ranging from 0 to 15%.
Conclusions: Stents on strings provide an excellent option following ureteroscopy, especially in those patients with no intraoperative complication. They reduce dwell time, pain, cost, as well as the risks of prolonged stenting. They might become gold standard in future with more shared decision making and patient reported outcome measures coming into the mainstream.

GP4-23 Nephrectomy in enlarged autosomal dominant polycystic kidneys- should hand-assisted laparoscopic approach be the new standard of care? Retrospective Experience at a single tertiary care center

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Introduction: Enlarged autosomal dominant polycystic kidneys (ADPK) often occupy a large volume in the abdominal cavity, necessitating removal to create space for allograft or due to symptoms of mass effect. Laparoscopic nephrectomy in such cases can be daunting and open surgery is advocated by many surgeons. We aim to present our technique and outcomes of hand-assisted laparoscopic nephrectomy (HALN) for these patients.
Materials and Methods: We retrospectively reviewed the medical records of 31 patients who underwent HALN for ADPK at our center between 2008 and 2023. Preoperative radiographic imaging was reviewed to estimate kidney size and volume. Patient demographics, intra-operative data, hospital stay and post-operative outcomes were collected and analyzed.

Results: A total of 41 HALNs were performed in 31 patients. Eight patients underwent bilateral nephrectomies, 2 underwent staged bilateral procedures and 21 underwent unilateral nephrectomy. The mean volume of the kidney was 3336ml. The most common indication for nephrectomy was creation of space for transplant (66.7%). There were no conversions to open surgery. The mean operative time was 160.45 minutes, with average hospital stay of 4.88 days. Mean extraction site size measured 7.8cm. Clavien-Dindo 3 or more complications were experienced in 3 cases (9.1%), with no mortality. There was no malignancy detected on final histology.
Conclusions: Our technique of HALN for these massively enlarged kidneys is safe and effective, offering all the advantages of minimal access surgery with small extraction site. This should be considered a new standard of care for management of these large kidneys requiring nephrectomy.

GP4-24 Comparison of ureteroscopy and laser stone fragmentation (URSL) between Holmium:YAG laser with MOSES vs Non-MOSES technology: A prospective single-centre propensity score-matched analysis using similar laser settings

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In-vitro studies have shown that MOSES technology can lead to an increase in efficacy of lithotripsy and reduction of retropulsion, but clinical evidence comparing it to Non-MOSES technology is still scarce. We compared ureteroscopy and laser stone fragmentation (URSL) with Holmium:YAG laser with MOSES vs Non-MOSES technologies.
Patient data and outcomes were prospectively collected and analyzed regarding patient demographics, stone parameters and clinical outcomes. Patients undergoing URSL with standard high power holmium laser (100W) without MOSES technology (group-1) were compared to 60W holmium laser with MOSES (group-2) using the same clinical laser settings (0.4-1J, 20-40Hz) with dusting and pop-dusting technique.
A total of 206 patients with a male:female ratio of 94:112 and a median age of 56 years were analyzed. Group 1 and 2 were matched for ureteric stones (27.7% and 22.3%, p=0.42), pre-stenting (37% and 35%, p=0.66), mean number of stones (1.76±1.3) and (1.82±1.4,p=0.73) and ureteral access sheath use (37% and 35%,p=0.77) respectively. While there was no significant statistical difference in clinical outcomes, the stone size was slightly larger in group 2, 14.8mm±10.8 vs 11.7mm± 8.0, for a lower operative time 42.7min± 30.6 vs 48.5min± 25, lower perioperative complication rates 3.9% vs 4.9% and a higher stone free rate 90.3% vs 87.4%.
While the use of MOSES technology was slightly beneficial for treatment of stones in terms of clinical outcomes, this was not statistically significant. As this debate continues, there is a need for high quality randomized studies to show if there is a true difference in these outcomes.

	HP 100W (n=103)	MOSES 60W (n=103)	p-value
Previous endoscopic procedures	34 (33%)	27 (26.2%)	0,29
Recurrent UTI	18 (17.5%)	17 (16.5%)	0,85
BMI	30.3 ± 9.9	28.5 ± 6.2	0,006
Pre-operative stent	39 (37.9%)	36 (35%)	0,66
Number of stones	1.76 ± 1.3	1.82 ± 1.4	0,73
Total stone length in mm	11.7 ± 8.0	14.8 ± 10.8	0,14
Ureteral stones	28 (27.2%)	23 (22.3%)	0,42
Operative time in min	48.5 ± 25	42.7 ± 30.6	0,13
Ureteral access sheath	38 (36.9%)	36 (35%)	0,77
Post-operative stent	60 (58.3%)	64 (62.1%)	0,57
Complications	5 (4.9%)	4 (3.9%)	0,73
Stone-free after first procedure	90 (87.4%)	93 (90.3%)	0,51

GP4-25 Percutaneous nephrolithotomy; Is supine superior ? Experience at a single tertiary care unit in Sri Lanka

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Introduction Optimum position for percutaneous nephrolithotomy (PCNL) is in debate due to pros and cons of each position. This is a major concern among both urologists and anesthetists. Supine position is becoming popular now; however, prone position has been practicing for long period and many urologists still prefer prone while anesthetists are vice versa.
Patients and Methods: This was a prospective observational study which was done in a single unit in Sri Lanka from 2019 for 2 years. Data was collected using pro-forma sheet. Patients were followed up at clinic and further imaging was arranged to assess clearance. Standard statistical software was used for analysis. Ethical Review Committee approval was obtained and study was complied with recommendations.
Results: A total of 213 patients underwent PCNL during study period and 196 patients were included in the study; Supine 99(51%) and prone 97(49%). Majority (> 85%) had

calculi of Guy's grade </=3. Median duration for the total procedure from induction of anesthesia to recovery was 68 minutes in supine category and 83 minutes in prone category ($p < 0.05$). Relatively a higher time was taken for positioning in prone group and access in the supine group. No major complications noted in any of the group. Stone clearance, tubeless procedure, post-operative pain and hospital stay were comparable and no significant difference noted between two groups.

Conclusion: supine position is a safe, efficient and anesthetist as well as surgeon friendly option specially for calculi with Guy's grade </=3.

GP4-26 The impact of a new primary ureteroscopy service for the emergency treatment of ureteric stones in a busy university hospital

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Introduction Patients with ureteric colic are generally treated with either a double J stent to await definitive surgery or managed conservatively. Few units are offering emergency ESWL or ureteroscopy. We recently introduced an emergency primary ureteroscopy service and we assess the impact on our service.

Methods: A retrospective analysis was conducted to identify patients presenting to A/E between May 2022 – May 2023 with ureteric colic. Patients were categorized based on treatment: conservative, emergency stent insertion, primary ureteroscopy. Patients requiring emergency nephrostomies were excluded.

Results: 404 (288 male, 116 female) patients were identified.

265 patients managed conservatively, 195 passed their stones. There were 13 readmissions (9 stented, 1 ESWL, 1 ureterosocpy on CEPOD, 1 passed stone, 1 DNA follow-up). 6 patients seen in outpatients were listed for ureteroscopy, 2 for ESWL, 1 died awaiting ureteroscopy. Follow-up data in 6 was unclear. 42 patients still awaiting follow up.

95 patients stented on CEPOD. 41% waited up to 3 months, 33% waited between 3 months and 10 months for ureteroscopy. 21% were still on the waiting list. 3% went private.

44 patients underwent successful emergency ureteroscopy, 1 readmission with sepsis.

Conclusion: This early analysis of a new service indicates that emergency primary ureteroscopy is safe and effective in the management of ureteric stones. It reduces the wait for definitive surgery, reduces reattendance to A/E and hence improves patients quality of life and has a low complication rate. We will look to audit the second year as numbers rise significantly.