we feel that this is currently not indicated as our hospital regime appears to be effective in managing patients with acute epididymo-orchitis.

0024: PRIMARY HYPERPARATHYROIDISM AND UROLITHIASIS: OUR EARLY EXPERIENCE
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Background: Hyperparathyroidism is associated with an increase risk of developing renal calculi. The aim of this study was to quantify the incidence of renal calculi in patients undergoing parathyroidectomy.

Method: A retrospective study of 38 patients that have undergone parathyroidectomy between 2002 and 2009 was performed. Patient age, mode of discovery, serum levels of biochemical markers and types of renal imaging were evaluated.

Results: 38 patients (7 male), median age 59 (range 31-79) were reviewed. All patients were diagnosed with primary hyperparathyroidism incidentally. Histology of parathyroid glands showed 9 nodular hyperplasias and 29 parathyroid adenomas. Median adjusted calcium is 2.87 (range 2.62 - 5.3), median parathyroid hormone level is 15.2 (range 6.6 - 114.8). 6 (15%) had a 24 hour urine calcium level test and 4 (10%) had renal stone. 13 (31%) out of 18 patients (US=5, CT KUB=3, IVU=3, abdominal x-ray=2) who have undergone renal imaging had renal calculi. 6 (16%) had renal calculi detected before confirmatory blood test for parathyrothryism.

Conclusion: Ultrasound scan of the kidneys could be recommended for all parathyroidectomy patients. A prospective study with 24 hours urinary metabolic work up might help to answer the relationship between primary hyperparathyroidism and urolithiasis.

0052: THE NATURAL HISTORY OF UNTREATED PROSTATE MRI LESIONS IN AN ACTIVE SURVEILLANCE PROSTATE CANCER POPULATION – 260 PATIENT-YEARS
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Aim: Lesions detected by multi-parametric (mpMRI) are positively associated with higher volume and higher grade of prostate cancer. This attribute of mpMRI makes it an ideal candidate as a tool in active surveillance (AS) to identify disease progression.

Method: Men on an AS programme were eligible provided they had 2 mpMRIs at least 3 months apart without any prostate cancer treatment. Imaging were assessed for the presence of a visible lesion (on T2, DCE or ADC map), and progression (by size/intensity of an existing lesion or detection of a new lesion).

Results: 98 men with histologically proven prostate cancer and a combined follow-up of 260 patient years were eligible. 51 men demonstrated no MRI progression during follow-up and all continued on active surveillance. 14/98 men underwent treatment. 11/14 either had a visible baseline lesion or developed one during follow-up.

Conclusions: Those men who did not radiologically progress at any point remained on active surveillance. The role of mpMRI in active surveillance merits further investigation.

0068: OUTCOME OF NEPHRECTOMIES IN THE OVER-EIGHTIES IN A LARGE DISTRICT GENERAL HOSPITAL
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Purpose: We investigated the morbidity and outcome of open and laparoscopic nephrectomies in patients 80 years old and over.

Materials and Methods: The records of octogenarians who underwent a nephrectomy from 1983 to 2009 were reviewed. Of 410 nephrectomies, 81 patients were originally identified, but 33 met our inclusion criteria. Patient records were analysed for morbidity and outcome.

Results: 33 patients were included with a median age of 82 years (range 80-89). 20 M; 13F. 21 patients had significant co-morbidities, including 5 with 2 or more medical problems. Indications for surgery included malignant disease in 31 patients and benign disease in two patients.

There was a 58% complication rate, including 18% intraoperative, 36% cardiovascular and respiratory and 12% renal complications. Of 13 laparoscopic cases one was converted to open. There were no returns to theatre.

30-day mortality was 3%. Overall median survival was 36 months, with a urological cancer related death rate of 32%.

Conclusion: The overall benefit of nephrectomies in patients over 80 years of age outweighs the risks of surgery. Although the morbidity rate is 58%, the overall median survival of 36 months suggests that surgery remains justified.

0208: ROLE OF EXTERNAL SPHINCTEROTOMY IN THE LONG TERM MANAGEMENT OF PATIENTS WITH SPINAL INJURY
Vijay Rao Gudla, Meena Agarwal. Cardiff and Vale NHS trust, Cardiff, UK

Introduction: Urological problems are the second most common cause of death in spinal injury patients. The optimal bladder management methods should preserve renal function and minimize urinary tract complications. Clean intermittent catheterisation is a gold standard. External sphincterotomy is also one of the methods to keep the patients free from catheter. The aim of this study is to look at the catheter free period and associated long term complications.

Methods: A database review of the patients undergoing external sphincterotomy in our hospital was done.

Results: A total of 24 patients were included in the study (12 with paraplegia, 11 with tetraplegia). The mean follow up after the first sphincterotomy was 13.75 years (range 1-36). Sixteen (67%) patients during the follow up needed the repeat sphincterotomy. Sixteen (67%) patients with the average duration of 16 (1-30) years were catheter free. Three (13%) patients needed to have an ileal conduit diversion, 5(20%) patients were converted into long term catheters.

Conclusion: External sphincterotomy has an important role in the treatment of the spinal cord injury patients with a neuropathic bladder. It is the treatment of choice for patients with a hyperreflexic bladder who are unable to catheterize themselves but can use condom drainage.

0285: PROSPECTIVE STUDY COMPARING WHITELIGHT CYSTOSCOPY VERSUS BLUELIGHT FLUORESCENCE CYSTOSCOPY IN DETECTING HIGH GRADE BLADDER TUMOUR
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Aims: Fluoroscopic-assisted (e.g. Hexvis) cystoscopy improve diagnostic yield primary transitional cell carcinoma in situ (CIS), detection rates for superficial bladder cancers; but not for the detection of high grade recurrence. The aims of this study were to validate blue light (BL) fluorescence cystoscopy after the intra-vesical application of hexaminolevulinate hydrochloride against conventional white light (WL) cystoscopy.

Methods: Prospective data from April to October 2010 was collected for primary high grade transitional cell bladder carcinoma (TCC), which were initially managed with transurethral resection of bladder tumour and/or chemotherapy.

Results: There was histopathologically confirmed recurrence in nine patients. WL and BL both detected recurrence in eight patients but also missed a CIS recurrence within random scar biopsy. There was no statistically significant difference between WL and BL in terms of sensitivity (89% and 86%), specificity (62% and 50%), false positive rates (38% and 47%) or false negative rates (14.3% and 11%).

Conclusions: WL and BL cystoscopy utilised for the surveillance of high grade bladder TCC demonstrated no significant difference. BL adjuvant does not impart an improved diagnostic yield. The one false negative case for recurrent CIS disease with CIS recurrence is clinically significant and does demonstrate the importance of random biopsies in suspected CIS.

0287: CURRENT STATUS OF VALIDATION FOR ROBOTIC SURGERY SIMULATORS – A SYSTEMATIC REVIEW
Hamid Abboudi, Mohammed Shamim Khan, Omar Aboumarzouk, Khurshid Guru, Ben Challacombe, Prokar Dasgupta, Kamran Ahmed. Guy's Hospital, London, UK

Objectives: We analyzed studies validating the effectiveness of robotic surgery simulators.

Materials and Methods: The MEDLINE®, EMBASE® and PsycINFO® databases were systematically searched until September 2011. Simulator name, training tasks, participant level, training duration and evaluation scoring were extracted.
Results: We identified 19 studies investigating simulation options in robotic surgery. Eleven studies compared performance between two different groups; Expert and Novice. Experts ranged in experience from 21-2200 robotic cases. The novice groups consisted of participants with no prior experience on a robotic platform. The MvT, ProMIS, SEP and Intuitive systems have shown face, content and construct validity. The RoSS system has only been face and content validated. All of the simulators except SEP have shown educational impact. Feasibility, educational impact and cost-effectiveness of simulation systems was not evaluated by the studies. Virtual reality simulators were demonstrated to be effective training tools for junior trainees.

Conclusions: Simulation training holds the greatest potential to be used as an adjunct to traditional training methods in order to equip the next generation of robotic surgeons with the skills required to operate safely. More research is needed to validate simulated environments and investigate the effectiveness of animal and cadaveric training in robotic surgery.

0337: STAGING IT BEFORE DIAGNOSING IT. A NOVEL RISK ASSESSMENT TOOL FOR PROSTATE CANCER

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Introduction: A 4-6 weeks waiting lapse is necessary if staging MRI is performed after TRUS-Prostate biopsy due to the challenging interpretation of MRI because of the haemorrhage and swelling. To improve treatment times, we discuss a novel idea of identifying patients who would benefit most from a staging-MRI before TRUS-P biopsy using a simple risk assessment tool.

Materials and Methods: A retrospective study enrolled 503 patients who were referred to our hospital on the 2 week wait prostate pathway. After analysing data from these patients, a tool was developed primarily using age and PSA. Ages 60-80 (grouped into 60-64, 65-69, 70-74 and 75-79) were included due to the feasibility of radical treatment. Each group was allocated a specific PSA range in an attempt to render most possible cancer patients who had MRI.

Results: The application of this tool identified a subgroup of patients aged 60-79 (n=124) with MRI rates of 48.4% and a cancer rate of 57.3%. These comprised 43.3% of all cancers in this age group 60-79.

Conclusions: Applying this tool will identify patients that can benefit from upfront staging MRI and hence early commencement of definitive treatment. Subsequently the cancer target wait is easier to achieve.

0346: NEWLY DIAGNOSED PROSTATE CANCER: ARE MEN BEING REFERRED SAFELY AND APPROPRIATELY FROM PRIMARY CARE?

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Aim: Many GPs find prostate cancer (CaP) diagnosis difficult. Although referral guidelines are available, anecdotal evidence suggests a disparity in approach between GPs and urologists. We determined whether men with histological CaP were referred appropriately from primary care.

Methods: We conducted a retrospective case-note review of 77 consecutive patients undergoing Trans-rectal prostate biopsies after 1st outpatient visit. Type, reason and quality of referral were determined.

Results: 77 men underwent biopsies with a mean-age of 71.1. 27.3% were routine referrals, 13% urgent and 59.7% 2-week rule. 5 patients had no PSA testing pre-referral, 42 had 1, 26 had 2 and 4 had >2. 90.3% were referred with a raised PSA. 67.5% had rectal examinations (RE) pre-referral. 31.2% patients had urinalysis pre-referral. 64.9% had histological CaP, 1.3% PIN, 33.8% benign histology (1 patient failed to attend biopsy). 72% of those with histological CaP were referred by 2-week-rule, 70% of whom had RE.

Conclusions: Most patients with suspected or proven CaP were referred under 2-week rule. Although quality of referral varied, most were appropriate. Areas for improvement include performance of RE and urinalysis. To avoid delays in diagnosis, education is needed to bring the practices of GPs and urologists in concordance.

0353 WINNER OF ASIT-SURG PRIZE: CONTEMPORARY OCCUPATIONAL BLADDER CANCER: A SYSTEMATIC REVIEW OF CURRENT EXPOSURES

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Background: Bladder cancer is a common disease that often arises following occupational exposure to carcinogens. Improved workplace hygiene and industrial sanctions have controlled or substituted the use of known bladder carcinogens. However, between 5 and 25% of contemporary tumours still arise following workplace carcinogen exposure, suggesting either unknown or uncontrolled exposure is still commensurate.

Aim: To systematically review recent evidence (since 1990) for occupational bladder cancer and to identify contemporary occupations implicated in its aetiology.

Method: A systematic review using Pubmed with strings to search for occupation and bladder cancer was conducted using limits to control for study design and select contemporary studies. After review using strict exclusion criteria, and following reference checks, 87 studies were included for analysis.

Results: Contemporary at risk occupations include: agricultural workers, drivers, engineers, fire-fighters, laundry workers, metal and metal-fluid workers, miners, nurses, plastics workers, pharmaceutical workers, print workers, textile workers, tool-makers, waiters, and wood workers.

Conclusion: Many of these are modern additions to our database of at risk occupations to bladder cancer and alterations in disease demographics suggest a variety of possible carcinogens requiring investigation. Occupational exposure remains an important public health problem that should be understood and incorporated into patient management.

0370: DOES OPERATOR EXPERIENCE AFFECT THE OUTCOME OF TRANSRECTAL PROSTATE BIOPSY?

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Cancer detection rate (CDR) is the single most important outcome measure of transrectal ultrasound-guided (TRUS) prostate biopsies. It is established that a number of factors influence outcome of the biopsy, but there is a paucity of data on the effect of operator experience.

We conducted a retrospective review of 344 patients who underwent their first TRUS biopsy in a single institution over a 12 month period. Biopsies were undertaken by 6 consultants (103), 8 senior trainees practising TRUS for >1 year (139) and 3 junior trainees who just started TRUS training (102).

Fisher’s test was used for statistical analysis. There was a significant difference in the CDR between consultants and juniors (p<0.005), and senior and junior trainees (p=0.008) at the expense of more Gleason 6 cancer found in the first vs third group (p=0.03).

We could not identify evidence of a learning curve amongst juniors. We have demonstrated higher CDR by more experienced TRUS operators, likely due to superior sampling. This finding implies that mentoring, self-audit and close follow-up are essential. The TRUS learning curve is likely to exceed 30 cases. CDR in our study is similar to values published in comparable cohorts (30-40%).

0481: IMPROVED FIVE YEAR SURVIVAL ESTIMATES OF RADICAL CYSTECTOMIES PERFORMED AT A HIGH VOLUME DISTRICT GENERAL HOSPITAL

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Radical cystectomy is a major operation with significant complications. There has been suggestion of centralising this operation to high volume cancer centres. All cystectomies for cancer performed at our centre between 2000 and 2010 were retrospectively analysed for survival data. Results were compared to published data from gold standard institutions. A total of 160 cystectomies were performed by six surgeons, an average of 12 per year between 2000 and 2006, and 18 per year since 2007. Data was gathered from theatre database operation codes and correlated with follow up data from electronic hospital records. Survival was estimated using Kaplan-Meier estimation, and sub-divided based on T-grading.

Results of cystectomies performed prior to 2007 were compared to published data from major institutions. Recent cystectomies have improved 5-year survival from 40% to 70%.