Conclusion: Urology is the least popular surgical career to pursue. Increased exposure to urology for undergraduates and dedicated workshops are needed to address these challenges.

0707: CAN GOOGLE GLASS BE USED AS A TRAINING AND ASSESSMENT TOOL?

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Aim: Limitations to working hours causes concerns for surgical training. Our pilot survey from 30 surgical trainees demonstrated problems regarding operating time and the quality of intra-operative feedback. We believed there was a requirement for a better training tool.

Methods: Google Glass for training and research was approved by the Trust Ethics Board and tailored consent forms were created. A small database of ENT and Orthopaedic surgical recordings were stored to a secure educational drive and a second set of recordings were done whilst a trainee operated and the trainer sat in the adjacent room, watching the procedure on a visual handpiece.

Results: In a second survey of the pilot group, 100% stated they would like access to the operative database, in particular of the lesser performed procedures. 87% would welcome Google Glass as a surgical training tool. Feedback from trainees described increased confidence in leaving the trainee to operate.

Conclusion: There is clear role of Google Glass in surgery, it can be used to provide a database of teaching surgeries, a tool for assessment and reflection and evidence for Annual Review of Competence and Interviews. The interactive element provides reassurance to both trainer and trainee.

0709: THE MERTHYR COACHING TOOL FOR LAPAROSCOPIC COLORECTAL SURGERY (LCS)

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Aim: LCS is being offered increasingly offered to patients within the UK. Although national training programmes are being developed in some areas, many surgeons continue to be trained thorough alternative mechanisms. We present a coaching tool developed within an established laparoscopic colorectal unit that has been used effectively to provide targeted training in LCS.

Methods: To support training in our unit a simple assessment tool was developed and used effectively to coach trainees since 2011. Factors used in assessment include case selection, access/exposure, port positioning, small bowel stacking, retraction, identification/protection of vital structures, safe vascular pedicle dissection and bowel mobilisation, and team working behaviour. We present our initial experience from the use of this tool.

Results: This tool has been used initially in self-assessment by the two authors over 225 cases. Subsequently, it has been used with 8 trainees of varying levels of experience and 11 consultant colorectal surgeons over a total of 66 cases to assess the performance as well as provide targeted feedback.

Conclusion: The tool has been shown to be a useful adjunct to the teaching and development of LCS within our centre. Further validation and ongoing assessment is required to promote its continued uptake.

0717: MAINTENANCE IV FLUID PRESCRIBING REFLECTS POOR JUNIOR DOCTOR KNOWLEDGE OF IV FLUIDS AND NEW NICE GUIDELINES FOR IV FLUID PRESCRIBING: IMPROVING IV FLUID PRESCRIBING IS DIFFICULT

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Aim: NICE guidelines (Dec 2013) recommend maintenance fluids providing 25–30ml/kg/day water, 1mmol/kg/day Na/K/Cl, and 50–100g/day glucose; representing a marked change from the traditional “one salt two sweet” regimen. We aimed to assess junior doctors’ knowledge of these guidelines, audit adherence, and improve prescribing practices.

Methods: Questionnaire and three 1-week prospective audit cycles following two interventions (1st — junior doctor teaching, 2nd — teaching & IV fluid prescription tool).

Results: 45/55/73/75% knew NICE’s recommendation for water/Na/K/Cl/glucose provision respectively. 18/18/0/45% knew electrolyte compositions of Hartmann’s/0.9% saline/0.45% saline + 5% dextrose/5% dextrose respectively. In total 43 patients received a total of 75 days of fluid. More than 50% of bags prescribed were Hartmann’s. Fluid prescriptions showed a shift towards the recommended allowances, improving from 29.1 to 24.5ml/kg water; 3.6 to 2.6mmol/kg sodium; 0.15 to 0.3 mmol/kg potassium; 3.2 to 2.5 mmol/kg chloride and 2.9 to 18 g glucose.

Conclusion: Junior doctors have a poor awareness of both the NICE guidelines and electrolyte content of commonly prescribed fluids. Over-reliance on Hartmann’s solution as the maintenance fluid of choice results in over-prescription of sodium and chloride and under-prescription of potassium and glucose. Prescribing practices can be improved, but multiple modalities and repetition of teaching are necessary to update prescribers to the latest guidelines.

0723: FACE AND CONTENT VALIDATION OF CADAVERIC SIMULATION IN COLONOSCOPIC TRAINING (PRELIMINARY RESULTS)

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Aim: To demonstrate face and content validity of cadaveric simulation as a tool for training in colonoscopy.

Methods: 5-point Likert-type scale questionnaire is used by candidates attending an endoscopic course involving one station of cadaveric simulation for training basic skills of colonoscopy to assess face and content validity.

Results: 10 trainees attended an endoscopy course at the Simulation Centre (ST-2-ST6, surgeons/gastroenterologists). For face validity, overall average score was 3.83. Tissue behaviour score was 3.81 with highest score (> 4) achieved in mucosal visualization, anatomical landmarks and reality of pathology. The lowest score was (3.4) regarding tissue pliability. Overall score for reality of manoeuvre was 3.9. Highest score was for tactile feedback (4.4) and torqueing (4) while the lowest score (3.5) were for scope navigation. Overall score for Content validity was 3.5. Highest score was achieved for overall comfort and realism. Usefulness for basic and advanced training was 3.4.

Conclusion: The preliminary results of cadaveric simulation show face and content validation is achievable. Advantages of cadaveric simulation include tissues and pathology realism and tactile feedback. Challenges may include the tissue pliability and reality of deformation. Future research will include larger number of candidates aiming at achieving higher study power and construct validation.

0729: SURGICAL PATHOLOGY OF THE GORDON MUSEUM

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Aim: The study of gross operative specimens is a valuable, yet under-utilised, methodology to learn about surgical disease. The Gordon Museum (London, UK) houses over 8,000 specimens, making it the largest pathology teaching collection in the country. The aim of this study is to demonstrate the value and relevance of studying gross pathological specimens, such as those in unique educational collections like at the Gordon Museum.

Methods: Six specimens were selected from the Gordon Museum based on their relevance to the museum’s history and to the educational requirement of the modern surgical trainee (as judged by their inclusion in the Membership of the Royal College of Surgeons exam syllabus). High-resolution photographs were taken of each, and relevant case histories reviewed. Additionally, a literature review concerning the diagnosis, assessment and management of each pathology was performed.

Results: High-resolution photography of six gross pathological specimens from the Gordon Museum are presented alongside case histories and a
0747: HOW WELL SURGEONS ARE AWARE OF RISKS ASSOCIATED WITH ROUTINE DIAGNOSTIC IMAGING?

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**Aim:** To assess the level of awareness among surgeons of the nature and risks associated with routine diagnostic imaging.

**Methods:** 114 clinicians from different surgical specialties were asked to fill a questionnaire which included total 32 questions about nature of radiations used in routine imaging, effective radiation dose, natural background radiation exposure, dose of single chest X-ray, estimated dose of other radiological investigation in comparison to CXR, common side effects and organs affected by the exposure. Participants were also asked to select the level of cancer risk association among different age groups and whether they consider alternative investigations.

**Results:** 54(47.37%) participants have misunderstood that routine radiological imaging involve non ionizing radiations. 47 (41.2%) knew correct effective radiation dose unit (mSv) while just 30% were aware of natural background radiation exposure. 73% overestimated the dose of CXR but 42% underestimated the cancer risk associated with CT abdomen. Although only 27% identified common side effects and organs affected by exposure however majority (80%) do consider patient’s age and alternative investigations before requesting one.

**Conclusion:** Surgeons need to be educated about the linear relation between radiation exposure and cancer development in order to minimize unnecessary exposure of patients.

0752: DEVELOPING THE LEADERSHIP SKILLS OF JUNIOR SURGICAL TRAINEES THROUGH A HANDS ON APPROACH

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**Aim:** The expanding role of doctors continues to evolve within the healthcare setting, in particular the need for leadership and managerial (L&M) skills. This case series provides a platform for junior doctors to develop their L&M skills through running structured courses

**Methods:** A surgical course is designed based on a tested infrastructure to meet the needs of junior doctors, following an audit. The course is carried out with the support of previous course directors (CD). Effectiveness of the course and its delivery are ascertained through a reaudit process. Participants are then encouraged to repeat the course using the same infrastructure with the help of their CD, ensuring the cycle continues. The CD are evaluated using a questionnaire and subsequent projects they run.

**Results:** 3 CD in 3 different trusts ran 3 courses with 50 participants. A reaudit showed 100% of participants had benefitted from the course with 60% implementing their new skills in a clinical context. 67% of the CD have since lead other projects. 100% of the CD had learnt new skills, gained confidence from the process and would recommend it to others.

**Conclusion:** This process offers junior doctors hands-on experience in developing L&M skills under supervision and support

0754: SIMULATION OF TENDON REPAIR USING MICROFOAM TAPE

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**Aim:** Injuries to the tendons of the hand are frequent, and require a highly skilled surgeon in order to aid full recovery and rehabilitation. Outcomes for injuries to the flexor tendons of the hand can be variable and repair, particularly in Zone II where there is limited room for error, can be challenging. Simulation of tendon repair can aid in perfecting technique in addition to practicing a variety of repair methods such as cruciate or modified-Kessler techniques.

**Methods:** The use of 3M’s Micro-foam tape represents a good medium for simulation of both flexor and extensor tendons.

**Results:** It is readily available and easily stored and can be assembled in seconds. It also has the advantage of being more hygienic than the traditional use of animal tendons for simulation. Its elastic properties allow it to handle like tendons, with its ability retract when cut and for its edges to fray when mishandled. It also allows one to place both core and epitenous sutures simultaneously and simulate a Zone II repair by adding pulleys to increase the difficulty and assess gliding of the repair.

**Conclusion:** This provides a valuable and inexpensive method of practising tendon repair for junior trainees who have an interest in hand surgery.

0768: SETTING UP A POSTGRADUATE PEER-LEAD ANATOMY TEACHING SERIES IN PREPARATION FOR THE IMRCS: OUR EXPERIENCE

0.37. Independently, 22% of students 8.3.7. Knowledge. The anatomy sessions were so far well received judging by attendees feedback with a mean overall session score of 4.82 ± 0.37. Individual component scores ranged from 3 to 5. When asked about their career preference 76.9% of the attendees were currently pursuing a career in surgery.

**Conclusion:** Formal anatomy teaching is rarely provided following medical school and there is a demand for postgraduate anatomy knowledge. Locally organised sessions is one way to fulfill the need and provide teaching opportunities at an early stage. Further data is being collected on how the sessions could be improved which we aim to present in the future.

0774: SYSTEMATIC LITERATURE REVIEW OF LEARNING BY MEDICAL STUDENTS IN THE OPERATING THEATRE

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**Aim:** The operating theatre (OT) offers unique learning opportunities for medical students, but the complex environment poses difficulties in harnessing its full potential. This systematic review assesses published literature reporting student perceptions to OT-based learning.

**Methods:** Ovid MEDLINE and Embase databases were queried using a dedicated search strategy for published literature relating to medical student learning in the OT. Eligible studies were limited to English language manuscripts published between January 1980 and August 2014.

**Results:** Following application of pre-defined limits, 450 articles were identified. Following title and abstract review, 12 were suitable for inclusion. Students perceive OT-attendance to be an essential component of a surgical clerkship, with opportunities to “scrub in” valued highly. Students perceive knowledge of theatre etiquette, ability to scrub adequately, ability to adhere to sterile procedures, awareness of risks to self, staff and patients as essential competencies. Approachability of theatre staff and surgeons’ willingness to engage in active teaching are important factors influencing students’ learning experience.