Can an eye tracker be used as a marker of surgical progress?

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Method: A retrospective audit of a sample of 55 appendicectomies performed over a 12-month period at our DGH.

Results: The primary surgeon was a consultant for six operations (10.9%), on the middle-grade rota for 35 (63.6%) and on the SHO rota for 14 (25.5%). A consultant was present and scrubbed in 10 operations (20.4%) performed by junior surgeons. Both open and laparoscopic techniques were used by surgeons at all levels of experience. There was no significant difference in duration of operating time between consultant and middle-grade surgeons (p=0.239) or consultant and SHO surgeons (p=0.263). There were no deaths within 30 days of surgery and the rate of post-operative complications was not significantly different between training grade of surgeon (p=0.412).

Conclusions: This study indicates that appendicectomy remains a procedure commonly performed by junior surgical trainees in this DGH, without adverse effects on morbidity.

0740: THE PLASTIC SURGERY NUMBER: HOW DID YOU GET YOURS? A NATIONAL SURVEY
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Introduction: Plastic Surgery is a competitive specialty with a total of 22 national training numbers (NTN) in 2012. Our national survey aimed to determine the prerequisite experience required as well as the cost of attaining an NTN.

Methods: A questionnaire on Survey Monkey was sent to plastic surgery trainees. We received 101 responses and present the findings.

Results: For the majority of trainees, plastic surgery was excluded from their undergraduate curriculum and they had to proactively seek the experience and 84% would have liked more undergraduate experience. The number of presentations, publications and experience required was high. The average months’ experience prior to NTN was 31, with 12 of those months on the registrar rota. Just over half of trainees had a higher degree, the average self-funded costs of which were £7,990. Additionally, trainees reported an average cost of courses of £7,344.

Conclusion: We believe this survey highlights the difficulties trainees face on the path to plastic surgery training. There is a need for more undergraduate experience, therefore allowing trainees to fulfill requirements early on, and trusts must be considerate of the financial cost trainees undertake.

0755: MEDICO-LEGAL TRAINING AMONGST UK SURGICAL TRAINEES
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Aims: It is important for surgical trainees to develop a sound knowledge of medical law and ethics. We therefore aimed to assess the provision of medico-legal training amongst current UK surgical trainees.

Methods: A 7-point Likert scale questionnaire was distributed at the 2012 ASIT conference and via membership mailing list.

Results: 581 completed surveys: [male [66%]; Foundation [28%], Core [29%] and HST [43%]. 74% and 56% of trainees reported receiving training in medical law and ethics as an undergraduate and thus far as a post-graduate, respectively. Although 90% of trainees feel that training in medical law and ethics is essential, only 40% agree that training received as an undergraduate, and 26% as a postgraduate, was adequate. 8% of trainees reported involvement in a medical malpractice case, with only 10% stating that they felt adequately prepared. Likewise, 26% of trainees were required to provide a statement for the coroner, with only 16% stating they felt prepared.

Conclusions: Inconsistencies appear to exist in provision of medico-legal training amongst UK surgical trainees, which is cause for concern. Improved provision of medico-legal training is required to equip future consultant surgeons for a career within a working environment of increased accountability and litigation.

0760: CAN AN EYE TRACKER BE USED AS A MARKER OF SURGICAL PROGRESS?
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Aim: Eye tracking has been used to show differences between where experienced and novice drivers are looking, teaching the inexperienced where to focus, making them safer drivers. This study set out to find any differences in eye movements between expert surgeons and novices, to see whether it could be used as a marker of surgical progress.

Methods: 6 surgeons and 10 medical students were shown 2 videos whilst an eye tracking device recorded their eye movements. 25 seconds of footage was analysed by defining the area per frame where the eyes should be focused, measuring the number of fixations and average fixation lengths, and comparing the two groups.

Result: The experts hit significantly more of the areas of interest than the novices (p<0.007). There was no difference in the number of fixations or average fixation length between the two groups.

Conclusion: The experts were more focused, the novices getting distracted, particularly by the instruments and blood. Surgeons weren’t moving their eyes in a different manner to novices. Eye tracking could be used to show improvements in performance as individuals move from novice to expert or combined with a VR simulator guiding trainees where to look as they practice.

0770: GENERAL SURGERY REGISTRARS CROSS-COVERING UROLOGY ON-CALL: A SURVEY OF CURRENT TRAINING AND EXPERIENCE IN THE MANAGEMENT OF CASES OF SUSPECTED TESTICULAR TORSION
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Aim: The aim of this study was to determine the current training and experience of general surgical registrars cross-covering cases of suspected testicular torsion.

Methods: An online questionnaire developed using SurveyMonkey was sent to 32 general surgical registrars across three North West London hospitals who at night were expected to cross-cover urology whilst on-call.

Results: Twenty-six registrars completed the survey (81% response rate). Of these, 50% had no prior experience in urology, 62% received no formal urology teaching and 46% performed less than five scrotal explorations under supervision. Ninety-two percent were unaware of procedure-specific consent forms produced by British Association of Urological Surgeons. Thirty-four percent routinely discussed abnormal intraoperative findings with the Urology Consultant and 8% received feedback post-operatively. If the testicle was found to be normal, 50% would perform ipsilateral orchidectomy, 8% opted for bilateral orchidectomy and 42% would not fix either testicle. Only 58% were confident to perform emergency explorations and 73% agreed that a Urology Consultant should supervise or perform explorations.

Conclusion: It is evident that a significant proportion of current general surgical registrars have limited experience in managing urological emergencies. This raises questions of training and competency while cross-covering specialties outwith general surgery during on-call duties.

0784: THE USE OF A COURSE MANUAL AND INSTRUCTIONAL VIDEOS IN TEACHING SUTURING TO MEDICAL STUDENTS
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Introduction: Despite the importance basic surgical skills, tutorials at medical school are brief and informal. We organised a course that offered pre-course material in the form of a manual and videos modelled after the College’s Basic Surgical Skills Course. We aimed to compare the efficacy of each learning tool and their effect on learning experience.

Method: 24 final year medical students were randomised in 2 groups (n=12) each receiving a different learning tool: a pre-course manual alone (group A) or a set of videos (Group B). A questionnaire was used as the assessment tool.

Results: 20 had previously attended surgical tutorials of which only 1(5%) offered pre-course material. From Group A 8(67%) strongly agreed that the manual improved their learning during the course and spent up to 1 hour preparing. From Group B, 10(83%) agreed or strongly agreed that the videos enhanced their experience and spent up to 2 hours preparing. 100% across both groups agreed that pre-course material can be used as a resource for future self-directed practise. Overall 20(83%) chose demonstration videos as the most desirable learning tool.