

feedback was found to be a powerful method for improving surgical outcomes or indicators of surgical performance, including reductions in hospital mortality after CABG of 24% ( $P=0.001$ ), decreases of stroke and mortality following carotid endarterectomy from 5.2% to 2.3%, improved ovarian cancer resection from 77% to 85% ( $P=0.157$ ), and reductions in wound infection rates from 14% to 10.2%. Improvements in performance occurred in concert with reduced costs: for hepaticojejunostomy, implementation of feedback was associated with a decrease in hospital costs from \$24,446 to \$20,240 ( $P<0.01$ ). Similarly, total cost of carotid endarterectomy decreased from \$13,344 to \$9,548.

**Conclusions:** Feedback can improve surgical performance and outcomes, but is influenced by the context of delivery.

#### 0155: MAXIMISING TRAINING OPPORTUNITIES IN THE OPERATING THEATRE: PILOTING A NATIONAL SURVEY TOOL

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**Introduction:** Effective surgical training is dependent upon the quality of theatre-based learning, yet the quality of in-theatre education is subject to little scrutiny in the literature. This study aimed to pilot a research tool and provide a brief snapshot of current practice across two centres.

**Methods:** We designed a pilot survey based on a validated research tool. Twenty surgical trainers and trainees across surgical subspecialties at two hospitals were invited to complete the survey. Feedback for tool development was obtained via semi-structured interviews.

**Results:** Twenty responses were received (10 trainees, 10 trainers). While two-thirds (60%) of trainers felt that the patient's procedure indication was reviewed before "most cases", no trainee respondents agreed. A learning goal discussion before "most cases" was reported by 30% of trainers and 10% of trainees. Time constraints led 5/10 of trainers to take over procedures in "many" or "most cases". Post-survey interviews provided insightful and useful feedback for tool development.

**Conclusions:** These initial results suggest wide variability, but generally low uptake of learning opportunities in the operating theatre, with discrepancies between trainers' and trainees' perspectives. This pilot provided highly valuable information to inform the development of a survey tool for use in the resultant research project.

#### 0203: DEVELOPING AN IN-HOUSE SIMULATED SURGICAL SKILLS COURSE FOR FOUNDATION DOCTORS

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**Introduction:** Foundation training provides limited exposure to procedural surgical skills, affecting trainees' confidence and interest in a surgical career. Many foundation trainees want to develop basic-level surgical skills, irrespective of long-term career aims, but are discouraged by high costs and differing aims of formal courses. We developed a simulated surgical skills course, tailored to the needs of foundation trainees.

**Methods:** A course was designed, covering an introduction to suturing, rigid sigmoidoscopy, laparoscopy and vascular examination using a hand held Doppler. Small group, hands-on, trainee led stations were facilitated by experienced surgical colleagues. Written feedback was obtained.

**Results:** A total of 23 FY1 trainees participated in the course, with 100% return rate of feedback forms. This covered 12 domains. For content (relevance to level, intellectual challenge) averaged 96%. For structure (clearly defined objectives, learning points emphasised) averaged 96%. For the presentation (enthusiasm of presenters, interactive learning environment) average 97%. Additional qualitative statements were collected.

**Conclusions:** A simulated surgical skills course can be delivered with positive feedback from trainees. Following further development, the long-term objective is to make the course an integrated part of foundation training at our Hospital.

#### 0214: THE ETHICS OF THE SURGICAL CAMP: A MULTI-BENEFICIAL TRAINING EXPERIENCE OR PRACTISING ON THE THIRD WORLD?

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**Introduction:** With implementation of the EWTD and consequent decline in caseload, surgical camps in the developing world provide attractive alternatives to increase surgical experience. However, moral and ethical

issues are complex. As a surgical trainee I spent two weeks operating in Uganda under consultant supervision. I explored the impact on patients, the local hospital and my training.

**Methods:** Data were collected over a two-week period: 1 Total cases performed by camp (control – mean hospital caseload over one year), 2. My number of "performed" and "assisted" operations in Uganda (control – mean caseload in UK)

**Results:** 1.Total cases performed by camp – 56(9 days), average 31/week, Mean in Uganda – 6/week (November 2012-2013) 2. Uganda: average 18 performed, 9 assisted/week (total 44 cases/8 days) UK mean: 5 performed, 4 assisted/week (November 2012-2013)

**Conclusions:** Surgical camps allow the benefits of UK training to be delivered worldwide, fulfilling ethical principles of beneficence and justice. Supervised training allows the first principle of medicine, "primum non nocere" to be upheld, while providing a 3-fold increase in training. With careful patient selection and engagement of local doctors in follow-up, we created a 5-fold increase in caseload, benefiting patients, local staff and the hospital.

#### 217: POST OPERATIVE SURGICAL DRAINS AFTER PANCREATOCODUODENECTOMY: SINGLE VERSUS DUAL DRAINAGE

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**Aim:** The placement of one or more abdominal drains after pancreaticoduodenectomy is common practice with the rationale that this facilitates early diagnosis of complications. Increasing evidence suggests that drainage after abdominal surgeries may be unnecessary. Our aim was to evaluate the outcomes following the use of one drain versus two drains following pancreaticoduodenectomy.

**Method:** We retrospectively reviewed 182 patients chosen at random out of a pool of 260 patients who had a pancreaticoduodenectomy between 2006 and 2013. Patients were subdivided into two groups; those with one drain (group1) and patients with two drains (group2).

Data was then analysed according to demographic factors such as age/gender and peri-operative factors such as type of pancreatic anastomosis, date of drain removal, complications, means used to diagnose and treat complications, length of stay, clinical details, cancer origin and histology reports.

**Results:** There were 37 patients in group1 and 145 patients in group2. The length of hospital stay was significantly shorter in group 1 (13.16 vs 15.39 days,  $P<0.05$ ). There was no statistical difference in the rate of overall complications, intervention or re-admission in both groups.

**Conclusion:** The use of one drain after pancreaticoduodenectomy may facilitate earlier discharge without increasing morbidity, mortality, re-admission and intervention rate.

#### 0220: EVALUATION OF THE GREENLIGHT SIMULATOR AND DEVELOPMENT OF A SIMULATION-BASED TRAINING CURRICULUM FOR LASER PVP

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**Introduction:** This study aims to establish learning curves; assess face, content and construct validity, feasibility and acceptability of the GreenLight Simulator; and develop an evidence-based training curriculum.

**Methods:** This prospective, observational and comparative study, recruited novice ( $n=25$ ), intermediate ( $n=12$ ), and expert ( $n=7$ ) level PVP surgeons from the United Kingdom and Europe. A group of novices ( $n=12$ ) performed 10 sessions of part-task training modules followed by a long operative case, whereas a second group ( $n=13$ ) performed five sessions of a given common case. Intermediate and expert groups performed all training modules once, followed by one operative case. Participants were given a quantitative survey to evaluate their experience.

**Results:** Construct validity was demonstrated in two of five training modules ( $p=0.038$ ;  $p=0.018$ ) and in a considerable number of case metrics ( $p=0.011$ ). Learning curves were observed in all five training modules ( $p<0.001$ ) and significant reduction in operative time ( $p<0.001$ ) and error ( $p=0.017$ ) were seen. An evidence-based training curriculum was produced using the results.