

plastic surgeon's skill set in treating trauma patients. Recognising this role is vital to ensuring on-going quality care, enabling workforce planning, and meeting specialist training requirements.

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### 1286: MORTALITY ESTIMATES IN ELDERLY BURNS: A NORTHERN IRELAND REGIONAL UPDATE

J.M. Clements\*, C. Black, K. Khan, B. Fogarty, A. Rashid. *Norman C Hughes Regional Burns Unit, Royal Victoria Hospital, Belfast, UK.*

**Introduction:** Mortality in the thermally injured elderly patient remains a challenge for burns surgeons. The aim of this audit was to provide an update on region wide Northern Irish (NI) mortality estimates in elderly burns patients with comparison to previously reported local data (1996–2005).

**Method:** A six year (01/01/10 - 31/12/15) retrospective case note & Electronic Care Record review was conducted on all patients over 65 years admitted to the Regional NI Burns Unit. The primary outcome measure was mortality rates represented by LA50 score. Secondary outcome measures were median burn size, presence of inhalation injury and admission to ICU.

**Result:** Recent study data outlined first. 96 patients (51M: 45F) were identified compared with 143 (65M: 78W) in the earlier study. Mean age (75 vs 76.7 years), median burn size (2 vs 3%TBSA) were comparable. Only 6 patients sustained a burn >15% TBSA compared with 21 patients in the earlier study. Admissions to ICU (12 vs 14), inhalation injuries (7 vs 10) and LA50 score (22 vs 21) were all comparable.

**Conclusion:** Despite a 33% increase in size of the >65 year population between 1996–2015 these data would suggest a reduction in the severity of thermal injury with comparable mortality estimates.

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### 1316: COMPLICATIONS OF SENTINEL LYMPH NODE BIOPSY FOR MELANOMA - A SYSTEMATIC REVIEW OF THE LITERATURE

J. Moody<sup>1,2,\*</sup>, R. Ali<sup>1,2</sup>, J. Hardwicke<sup>1</sup>. <sup>1</sup>Queen Elizabeth Hospital, West Midlands, UK; <sup>2</sup>School of Clinical and Experimental Medicine, University of Birmingham, West Midlands, UK.

\*Corresponding author. Queen Elizabeth Hospital, West Midlands, UK.

**Aim:** The complications reported after sentinel lymph node biopsy (SLNB) for melanoma is highly variable in the worldwide literature; the overall complication rate varies between 1.8% and 29.9%. With heterogeneous reporting of morbidity data, no 'average' complication rates of this procedure has been reported. This systematic review aims to determine the average complications rates associated with SLNB.

**Method:** A systematic review of English-language literature from 2000–2016, which reported morbidity information about SLNB for melanoma, was performed. Identified papers were reviewed according to Consolidated Standards of Reporting Trials (CONSORT) and the Methodological Index for Non-Randomized Studies (MINORS).

**Result:** After application of inclusion and exclusion criteria, 19 articles progressed to the final analysis. 8146 patients were included. The overall complication rate was 11.2% (95% CI: 8.1–14.8). The incidence of infection was 3.0% (95% CI 1.5–4.9); seroma 5% (95% CI: 2.2–8.8); haematoma 0.4% (95% CI: 0.2–0.8) lymphedema 1.6% (95% CI: 0.6–3.0) and nerve injury 0.4% (95% CI: 0.2–0.7). There was no statistically significant difference in morbidity between the sites of SLNB.

**Conclusion:** This study provides information about the incidence of complications after SLNB. It can be used to counsel patients about the procedure and it sets a standard against which surgeons can compare their practice.

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## Surgical training and education

### 0074: WHY MEDICAL STUDENTS WITH AN INTEREST IN SURGERY CHOOSE NOT TO INTERCALATE

R. Simson<sup>1,\*</sup>, D. Baird<sup>2</sup>. <sup>1</sup>Newcastle University, Newcastle-Upon-Tyne, UK; <sup>2</sup>North West Thames Surgical Registrar, UK.

**Aim:** To explore what proportion of medical students interested in surgery choose not to intercalate and why. To evaluate perceptions regarding intercalating on surgical careers and assess attitudes of medical schools to intercalating as perceived by students.

**Method:** Cross-sectional questionnaire sent to members of Student Surgical Societies at all Medical Schools in Great Britain and Ireland.

**Result:** Of 234 responses, 190 students expressed an interest in surgical careers of whom 130 were definitely interested and 60 possibly interested. Intercalation rates were 55% and 35% respectively but only 14% in those uninterested in surgery ( $p < 0.05$ ). Although 69% of students agreed that intercalating would help their surgical career, 33% of these were still against intercalating. The main reasons against intercalating were another year of study (68–71%) and perceived extra financial burden (51–59%).

42% of students felt they were not given enough information about intercalation by their university and only 29% felt encouraged to intercalate.

**Conclusion:** Rates of intercalation varied significantly depending on commitment to surgery but many chose not to intercalate despite acknowledging career benefits. Others did not think that intercalating would help surgical careers. If medical schools provided better information and encouragement to students, intercalating rates could be greater.

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### 0098: FEASIBILITY OF AN 'EXTRA-CURRICULAR' CLINICAL RESEARCH MATCHING SCHEME FOR UNDERGRADUATE MEDICAL STUDENTS

P. Sutton<sup>1,\*</sup>, J. Evans<sup>1</sup>, V. Jha<sup>1</sup>, R. Cresner<sup>2</sup>. <sup>1</sup>University of Liverpool School of Medicine, Liverpool, Merseyside, UK; <sup>2</sup>Alder Hey Children's Hospital NHS Foundation Trust, Liverpool, Merseyside, UK.

**Introduction:** Pressures on the undergraduate curriculum have resulted in reduced exposure to skills in research, involvement in which is a key requirement for career progression.

**Method:** Doctors within Merseyside submitted projects to a centrally co-ordinated scheme which matched projects to self-selecting undergraduate medical students. A follow-up questionnaire of student participants at 12 months was used to evaluate the feasibility and success of the scheme.

**Result:** Student demand ( $n=87$ ) was higher than project submission. Thirty-five projects from multiple systems were matched: gastrointestinal (5), respiratory (5), reproductive (6), musculoskeletal (4), cardiovascular (3), nervous (2) and endocrine (1). Project types were either prospective clinical (12), retrospective clinical (11) or basic science (3). All respondents ( $n=29$ ; 83%) reported a clearly defined research question. Students contributed to multiple areas including: protocol refinement, literature reviewing, patient recruitment, data collection and analysis, writing and presentation. Students had met with their supervisors a median of 5 (range 1–15) times since project conception, and at 12 months 4 (14%) had achieved published abstracts and/or presentations. Free text responses about the scheme were generally very positive, with only 3 (10%) reporting prohibitive logistical difficulties.

**Conclusion:** A clinical research project matching scheme is deliverable for undergraduate medical students, providing educational benefit and portfolio enhancement.

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### 0196: COMPARISON BETWEEN THE EFFECT OF A SELF-ADMINISTERED AND A TRAINER-ADMINISTERED SURGICAL CHECKLIST ON THE LAPAROSCOPIC TASK PERFORMANCE

M. El Boghdady\*, B. Tang, I.S. Tait, A. Aljijani. *Cuschieri Skills Centre, Ninewells Hospital and Medical School, Dundee, UK.*

**Aim:** Surgical checklists are used to reduce errors, however, the best method of administering the checklists is still unknown. We aimed to compare the effects of trainee self-administered versus trainer-administered checklist on the laparoscopic task performance of novices.

**Method:** We formulated a standardised checklist among master surgeons by consensus. Ten consented novices were randomised into 2 equal groups. Both groups performed double square knots in two separate stages (3 minutes per stage).

Stage 1: no checklist applied by either groups. Stage 2: The study group with a trainee self-administered checklist and the control group with a trainer-administered checklist.

The unedited video-recorded laparoscopic tasks were assessed by a blind assessor using the human reliability assessment technique. Non-parametric statistics were used for data analysis.

**Result:** Unlike the control group, the study group showed highly significant improvement in the laparoscopic task performance as measured by the number of errors committed in stage 2 vs stage 1 (control group: 131 vs 106 errors, study group: 154 vs 84 errors,  $p < 0.01$ ).

**Conclusion:** The trainee self-administered method of applying a surgical checklist had a significant accelerating effect on the acquisition of technical skills during a standardised lab-based laparoscopic task when compared to the trainer administered method.

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### 0213: MENTORSHIP IN HIGHER SURGICAL TRAINING – WHAT DO TRAINEES REALLY WANT?

R. Houston<sup>1,\*</sup>, R. Hettige<sup>1</sup>, Y. Sheena<sup>2</sup>, M. Bhutta<sup>3</sup>, S. Hettige<sup>4</sup>. <sup>1</sup>John Radcliffe Hospital, Oxford, UK; <sup>2</sup>Addenbrookes Hospital, Cambridge, UK; <sup>3</sup>Children's Surgical Centre, Phnom Penh, Cambodia; <sup>4</sup>Great Ormond Street Hospital, London, UK.

**Introduction:** The benefits of mentorship to surgical trainees are well documented. Previous research undertaken by the Association of Surgeons in Training showed disparity between the high demand for mentorship and the low uptake of mentorship schemes. We analysed feedback from higher surgical trainees (ST3-8) to ascertain what they really want from mentoring to address this disparity.

**Method:** An online questionnaire was distributed to three UK higher surgical training cohorts. Results were analysed by speciality and training-grade.

**Result:** A 68% survey response rate was achieved (N=45). 93% of respondents felt formal mentorship would be beneficial and 80% felt they lacked suitable mentorship opportunities.

Trainees felt a mentor of close training-grade, within the same speciality, but not at their own level would provide the best mentorship. The choice of mentor was equally important to non-training grades.

No trainee felt their current Educational Supervisor was a suitable choice of mentor.

Further perceived benefits included the consensus that if mentorship is to be effective it should be formally recognised for revalidation.

**Conclusion:** Our findings provide insight into what the higher surgical trainee really wants from mentorship. We make recommendations to facilitate improved engagement and discuss the development of a sustainable higher surgical mentorship scheme.

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### 0236: LAPAROSCOPIC SURGERY ISN'T SIGNIFICANTLY REDUCING TRAINEES' EXPOSURE TO THE 'EMERGENCY LAPAROTOMY'

F.R. Mosley, J.R. Ausobsky. *Yorkshire and Humber Deanery, Yorkshire, UK.*

**Background:** General surgical trainees are required to undertake 100 'Emergency laparotomies' to meet the JCST criteria for CCT (Certificate of Completion of Training). Anecdotal evidence suggested that operations traditionally undertaken as laparotomies were being done laparoscopically. There was concern that this would mean these would not count towards the requisite number for CCT.

**Method:** Trainees, from a single deanery, were asked to prospectively record all emergency laparotomies and laparoscopic cases over a 3-month period. Trainees were asked to exclude paediatric cases and appendectomy. Trainees recorded the operation name, whether the case was open or laparoscopic and the level of supervision.

**Result:** Data was received from 18 trainees and 137 operations. 21% of operations were recorded as the trainee 'assisting'. The majority, 86%, were undertaken as open operations. The median number of cases over the 3-month period was 6.5. Based on the JCST list just 1 of the laparoscopic cases would not have been counted as a 'laparotomy'.

**Conclusion:** The volume of emergency cases does allow trainees to meet the criteria for CCT. Laparoscopy is still predominantly used for post-operative complications following elective laparoscopic surgery, and perforated DU. Assisting in an operation was the main reason that cases were not counted.

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### 0245: LAPAROSCOPY TRAINER WORKSHOPS: TAKING SURGERY INTO THE TRAINEE'S HOME

L. Swafe<sup>1</sup>, A. Esfandiari<sup>1</sup>, B. Woods<sup>1,\*</sup>, A. Sudlow<sup>2</sup>. <sup>1</sup>James Paget University Hospital, Great Yarmouth, Norfolk, UK; <sup>2</sup>Norfolk and Norwich University Hospital, Norwich, Norfolk, UK.

**Aim:** Due to time constraints in theatre opportunities for trainees to learn and develop new skills have been limited. Simulation has been increasingly seen as a valid tool for improving technical skills outside the theatre environment, but purchasing commercially available trainers is prohibitively expensive whilst access to simulation equipment in hospitals is highly variable.

**Method:** We organised the first "Build Your Own Laparoscopic Trainer" workshop in conjunction with The Academy of Surgical Education and with funding support from ASIT. This one day course was open to candidates nationally, who were each provided with all the required equipment and expertise in order to build their own laparoscopic trainer.

**Result:** Fifteen delegates attended the course, with backgrounds varying from medical students to registrars. Once the trainers were built, trainees had the opportunity to work through a series of tasks and had a session on laparoscopic suturing and knot tying led by a consultant surgeon. Following the course delegates were able to take their trainers home to continue their learning.

**Conclusion:** The course illustrated that building your own laparoscopic trainer is possible with easily obtainable materials, and helped remove some of the barriers trainees face in furthering their development as future laparoscopic surgeons.

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### 0310: MULTIDISCIPLINARY SIMULATION TRAINING: ACUTE MANAGEMENT OF LARYNGECTOMY AND TRACHEOSTOMY PATIENTS

O. Wakelam<sup>\*</sup>, C. Kirby, A. Poon, E. Teh. *Lister Hospital, Stevenage, UK.*

**Aim:** Following a serious incident at a cardiac arrest call for a laryngectomy patient, our simulation faculty was approached to provide multidisciplinary training to doctors and nurses involved in the care of laryngectomy and tracheostomy patients.

**Method:** Six multidisciplinary simulation sessions were organised using the Laerdal Essential patient simulator and Laerdal Learning Application software. Scenarios involved acutely deteriorating laryngectomy or tracheostomy patients and were followed by a group debrief. Participants completed pre-session and post-session questionnaires and multiple choice questions in order to evaluate the effectiveness of our training.

**Result:** We ran a total of 21 scenarios, catering for 25 doctors and 19 nurses. Our data indicates that our training increases participants' knowledge of the differences between laryngectomy and tracheostomy patients, and improves participants' confidence to assess and manage these patients, including those in respiratory distress (Mann-Whitney U test,  $p < 0.05$ ). Participants found the scenarios to be realistic (mean five-point Likert score 4.7/5).