Introduction and Aims: This study sought to examine the impact reformed training pathways and the European working time directive (EWTD) may have had on the provision of senior house officer (SHO) or equivalent training in plastic surgery units.

Methods: All units with SHOs in the UK were surveyed at two time points, February and August 2009. The number of vacancies, composition of the SHO tier and introduction of “cross-cover” was examined.

Results: Forty two units were identified and 52% had vacancies in February 2009. 42% of units expanded their SHO tier for the introduction of EWTD proper in August 2009. Foundation year 2 (FY2) doctors work as SHOs in 38% of units. In August 2009 little change was noted with 47% of units reporting vacancy. All units were compliant. Eleven units (26%) had vacancy at both time points, and more multiple vacancies were noted in August 2009. In August 2009 14 units had cross specialty cover at night.

Conclusion: There is a chronic understaffing amongst the SHO or equivalent training grade in plastic surgery. Preservation of precious training time should be paramount with the advent of a shorter working week and methods of achieving this need are proposed.

Introduction: Analysis of sentinel nodes by OSNA uses a polymerase chain reaction to measure lymph node CK19 mRNA an epithelial marker for breast cancer.

Method: Prospective analysis of 54 patients between February 2010 to January 2011 was carried out. Sentinel node identification was by dual method of Patent Blue V and isotope injection into the breast. Nodes were cut into 4 slices A,B,C and D. Slices A and C were processed in OSNA and slices B and D underwent histological assessment by H&E staining. Tumour characteristics were identified for each patient and correlation between OSNA and histopathology was assessed.

Results: One hundred and forty one nodes were taken from 54 patients. Exclusions on basis of weight and availability for comparison (25) left 116 nodes available for histological comparison. 18 were found to have micrometastases or micrometastases. The sensitivity and specificity of OSNA was 100% and 87% respectively. If on the basis of tissue allocation bias, we excluded micrometastases (9 cases), specificity was 97%. There was no correlation between node positivity, tumour grade, size or receptor status.

Conclusion: OSNA saved 18 patients from a second procedure and has an excellent sensitivity and high specificity. Further prospective data collection continues.

Introduction: Mini C-arm fluoroscopy control is commonly used during surgical fixation of hand fractures and exposes staff and patients to the risks of radiation. Radiation protection is a responsibility of every surgeon.

Method & Results: Retrospective analyse of the Mini-C arm operator recommendations in the peer reviewed literature (Pulvertaft Hand Centre) maximum acceptable radiation dose in hand surgery do not exist, but a mandatory requirement (IR(MER)R2000). National guidelines for the maximum acceptable radiation dose in hand surgery do not exist, but recommendations in the peer reviewed literature (Pulvertaft Hand Centre) suggest a maximum of 30 seconds for open reduction/internal fixation (ORIF) and 10 seconds for k-wire fixation (MUAr-kwire). Our own departmental guidelines recommend 60 seconds for either procedure. We audited our performance according to these guidelines and improved our outcome by implementing simple changes.

Methods & Results: Retrospective analyse of the Mini-C arm operator logbook over 3 months: ORIF (n=29) compliance according to departmental guidelines: 100%, Pulvertaft guidelines: 97%; MUAr-k-wire (n=22) compliance 86% and 14%, respectively. Closing the audit loop: ORIF (n=45), compliance according to departmental and Pulvertaft guidelines: 100%; MUAr-k-wire (n=36), compliance 100% and 17%, respectively (time period—3months).

Conclusion: We advocate that the use of Mini C-arm fluoroscopy should be subject to regular audits in every hand surgery department.
0666 A CLINICAL AUDIT OF ENHANCED RECOVERY AFTER SURGERY (ERAS) ON FIVE SURGICAL WARDS AT NUH
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Background: The majority of evidence for ERAS lies within colorectal surgery. Evidence for its benefit in other specialties is limited. Protocols for ERAS have been introduced in 5 specialties within NUH.

Aims: To determine the application of ERAS principles within the identified specialties.

Method: Patients undergoing colorectal, gynaecological, gynaecologic oncological, upper gastrointestinal and hepato-pancreaticobiliary surgery within defined ERAS protocols were audited prospectively. The primary outcomes were length of stay and ERAS success (determined by discharge in accordance with protocol).

Results: 125 patients were audited. ERAS success ranged from 63.6% in gynaecology to 29.2% in gynaecologic oncology. Good compliance with protocol led to improved ERAS success in all specialties. Significant predictors of ERAS success (p<0.05) were demonstrated where patient population allowed. In colorectal surgery: ASA ≤2, laparoscopic open surgery, eating breakfast on day 1, distance walked on days 1 and 2, and removal of IVI, catheter and PCA/epidural as recommended by protocol. In gynaecology and gynaecologic oncology: eating a normal diet on day 1 and catheter removal on day 1.

Discussion: The major issues affecting the ability to comply with the principles of ERAS were identified. These include poor patient motivation, inadequate anti-emetic control and sub-optimal patient mobilisation. They should be implemented and subsequent re-audit instituted.

0668 3D CONTRAST ENHANCED ULTRASOUND OF CAROTID ATHEROSCLEROSIS
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Contrast enhanced ultrasound is an emerging technology for assessment of carotid plaque morphology, perfusion and inflammation. 2D ultrasound is the current standard for plaque assessment. However it suffers from sampling error and section location is difficult to reproduce.

Aim: A feasibility study to identify whether 3D imaging could address these problems.

Method: 6 patients with 50-99% carotid stenosis were imaged following bolus injection of 2ml of intravenous Sonovue (Bragco, Italy) at a mechanical index of 0.27. The GE Logiq E9 ultrasound platform and the L6-16 probe were used to capture a 1 minute cine loop of 2D imaging, followed by a repeat injection and 3D acquisition at 40 seconds. Three dimensional plaque models were then constructed.

Results: 3D imaging provided a mean of 3x1mm sections instead of 1 for visual plaque analysis. In one patient ulceration not detected on 2D contrast imaging was seen on 3D.

Conclusion: 3D contrast enhanced ultrasound imaging is feasible and has the potential to provide improved visualisation of plaque vulnerability features by reducing sampling error. The resulting 3D models may assist in surgical planning. Continuous 3D acquisition and contrast quantification software are required before this technique can be introduced for stratification of carotid stroke risk.

0669 LONG-TERM GASTROINTESTINAL OUTCOMES AFTER STREPTOCOCCUS BOVIS BACTERIAEMIA
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Aim: To review the clinical outcomes of patients with S. bovis bacteraemia in our hospital trust, particularly regarding gastrointestinal pathology.

Methods: A retrospective cohort study of patients with S. bovis bacteraemia was performed. Clinical records and general practitioner questionnaires were reviewed for data regarding demographics, comorbidities, clinical presentation, investigations, interventions and final outcomes.

Results: Sixty positive S. bovis blood cultures from 42 patients were included (M=25, mean age 67.1, range 44-88 years and F=17, mean age 68.9, range 31-90 years). Thirty-two patients had one positive S. bovis blood culture; 10 had more than one positive culture. Five patients had a previous diagnosis of a colorectal lesion prior to their bacteraemia (CRC=4, adenoma=1). Thirteen of the remaining 37 patients underwent colonoscopy on their index admission where three colon cancers and seven adenomas were diagnosed. Of the remaining 24 patients, only one colorectal carcinoma was detected in a subsequent admission.

Conclusion: Colorectal pathology was detected in 76.5% (10/13) of all patients who underwent index admission colonoscopy. Colonoscopy should be considered in all patients with S. bovis bacteraemia during or soon after their index admission. Patients who have had a normal colonoscopy do not require further colonic investigation in the absence of symptoms.

0674 INTRATHYROID PARATHYROID ADENOMA: ROLE OF HEMITHYROIDECTOMY
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Background: Intra thyroid parathyroid adenomas are one of the causes of persistent hyperparathyroidism. They can make parathyroidectomy difficult even for the experienced endocrine surgeons. The purpose of this study was to evaluate the effectiveness of thyroid resection in patients with positive pre operative localization.

Methods: We report a single centre experience of parathyroidectomy over 4 years ending 2010. All patients have pre operative localisation of adenoma.

Results: Between 2006- 2010, 70 patients underwent focused para thyroidectomy for primary hyperparathyroidism. 12 (17%) were male and 58 (83%) female with mean age of 61 years (range34-81). All patients have pre operative localization of adenoma with 99mTc-labelled sestamibi isotope scanning and 17 had an additional ultrasound of neck. In 7 (10%) patients, adenoma was not clearly identified and hemithyroidectomy was carried out. Histology of 5 (7%) patient showed intrathyroid parathyroid adenoma and 2 showed normal thyroid tissue. All 7 patients have a normal calcium levels at 6 weeks and 3 months post operatively.

Conclusion: Our cohort shows incidence of intrathyroid parathyroid adenoma at 7%. Our experience supports the opinion of hemithyroidectomy for intrathyroid parathyroid adenoma.

0676 TOTAL THYROIDECTOMY: DEFINITE TREATMENT OPTION FOR GRAVES’ DISEASE
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Background: Thyroidectomy is recommended as standard treatment for Graves’ disease. The aim of this study was to review retrospectively the