**Introduction:** An outbreak of deep-seated Group A Streptococcal (GAS) infections occurred in reduction mammaplasty patients in our unit following which a peri-operative antimicrobial prophylaxis protocol was introduced.

**Aim:** To assess if the new antimicrobial prophylaxis protocol reduced wound infection rates.

**Methods:** A case note review for all patients undergoing bilateral reduction mammaplasty 9 months prior to (group 1) and 9 months following (group 2) introduction of this protocol was carried out at the Northern General Hospital. Infection rates between the two groups were compared. Steps to deal with the GAS outbreak and the clinical governance issues raised consequently are also discussed.

**Results:** There were 103 patients in Group 1 and 87 in Group 2. 53% of patients in group 1 were given antibiotics at induction versus 95.8% in Group 2. Infection rate was 12.5% in Group 1 versus 6.9% in Group 2 (p=0.20, χ² test, 95% CI: 0.188-1.427). Return to theatre following infection occurred in 3% of patients in Group 1 (n=3/103) versus none in group 2. GAS was implicated in 20% (n=21/103) cases in group 1 versus 0% in group 2.

**Conclusion:** Enforcement of this antimicrobial prophylaxis policy eradicated serious infections following reduction mammaplasty.

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**0854 THE SAFETY AND EFFECTIVENESS OF HERNIIGRAMS IN THE INVESTIGATION OF PATIENTS WITH OCCULT HERNIAS IN A SINGLE UNIT**

**Introduction:** The aim of this study was to examine the safety and efficacy of herniogram use in a single unit in patients presenting with a suspected occult hernia.

**Methods:** Patients who underwent herniography between 02/07/07 and 01/09/2010 were retrospectively identified in a single unit. Patient’s herniogram results and subsequent management were recorded using clinical and radiological databases.

**Results:** 71 patients were identified. 42 patients had positive herniograms. 19 patients underwent surgical repair (11 direct, 7 indirect, 1 no hernia found), 4 await surgery and 19 had no surgical intervention as were either asymptomatic or had no hernia clinically. Of the 29 patients who had negative herniograms 4 were referred to Chronic Pain Team, 1 underwent Gilmore’s groin repair and 24 patients were discharged. As a direct result of the herniogram, one patient developed peritonitis, requiring a subsequent laparoscopy confirming small bowel perforation and another suffered a vasovagal episode when contrast was instilled.

**Conclusion:** Positive herniograms only changed patient management in 55% of cases whereas a negative result allowed the majority of patients to be discharged or appropriately referred on. Given the invasive nature of the procedure, herniograms should only be requested if a positive result will directly change patient management.

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**0856 ESTABLISHING A LEVEL OF COMPETENCY FOR ACQUIRING BASIC ENDOSCOPY SKILLS ON A VIRTUAL REALITY ENDOSCOPY SIMULATOR**

**Aims:** This study aimed to determine expert benchmark metrics for acquiring the generic GI endoscopy skills on the Virtual Reality Simbionix GI Mentor II and also whether the simulator has construct and expert validity for these exercises.

**Methods:** A prospective comparative study was carried out; nine expert endoscopists and nine novices performed four generic endoscopic exercises on the simulator. After one practice run, data was collected from three subsequent runs. The expert endoscopists were asked about their opinion of the simulator.

**Results:** Both the groups adapted very well to the machine. The experts completed the Endobubble Level 1 and 2 in a mean of 76.68seconds and 100.47seconds respectively (Novices in 59.66seconds and 90.86seconds respectively) The Endobasket tasks Level 1 and Level 2 were completed in means of 65.04 and 122.88seconds, respectively (Novices in 64.41 and 111.00seconds respectively).

**Conclusions:** In order to create a robust curriculum there need to be endpoints for the trainees to achieve and this can be quantified by using data from expert endoscopist performing simulated endoscopy. The longer time taken by experts is a reflection of more time spent inspecting the virtual bowel. All expert endoscopists welcomed the simulator as a novel training method and curricula will be developed to be used in formal training programmes.

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**0857 A RETROSPECTIVE AUDIT STUDYING TONGUE TIE DIVISION IN INFANTS AT A TERTIARY REFERRAL CENTRE**

**Aim:** Ankyloglossia or tongue tie is a congenital abnormality leading to a short lingual frenulum. This condition has been identified as a reason for poor feeding which in turn can lead to failure to thrive. The evidence for such a link is controversial.

**Method:** The parents of 100 infants who had undergone the procedure over the last six months were called. A set proforma that had been pre-designed was then completed.

**Results:** The age of division ranged from 1 - 89 days and the median age was 13.6 days. 70% of the mothers were breastfeeding. 74% of mothers reported an improvement in feeding. 80% of these claimed that this was noticed within 24 hours. There were no reported complications.

**Conclusion:** The procedure offered by our unit does not require general anaesthetic or an in-patient stay. It is fast, simple and relatively low risk. There may be a benefit to tongue tie division in symptomatic infants however these results are not conclusive.

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**0858 NATURAL HISTORY OF RECOVERY FOLLOWING FACIAL PARALYSIS: AN OUTCOME ANALYSIS**

**Aim:** The study aims to identify clinical factors which can be used to predict natural recovery following facial paralysis.

**Methods:** The material includes 166 patients with at least 6 months follow-up from the initial diagnosis of facial paralysis. Natural recovery was studied retrospectively using House-Brackmann system for each of these four factors: age at onset, degree of paralysis at onset, cause, and the presence of aberrant regeneration. Patients who developed facial paralysis following acoustic neuroma excision were further studied to identify additional factors affecting natural recovery in this specific group, including size of the tumour, status of the facial nerve, and surgery to the nerve following tumour removal.

**Results:** Statistical analysis showed that initial House-Brackmann grade at onset (p=0.038), cause (p=0.025), and the presence of aberrant regeneration (p=0.024) had statistical significance in predicting natural recovery. In the acoustic neuroma subgroup, status of the nerve following tumour excision demonstrated statistical significance in natural recovery (p<0.001).

**Conclusion:** Despite still being in the early stages, it is possible to predict natural recovery based on clinical findings. The findings can be used in the future practice to identify patients who would benefit most to interventions as well as estimating a timeline of natural recovery.

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**0860 SYSTEMATIC REVIEW OF PUBLISHED AND UNPUBLISHED DATA ON THE INCIDENCE OF INCISIONAL HERNIA FOLLOWING CLOSURE OF ABDOMINAL WALL STOMAS**

**Aims:** A systematic review of the current literature was undertaken to attempt to quantify the rate incisional hernias following abdominal wall stoma closure.
Methods: A comprehensive literature review identified studies reporting the incidence of incisional hernias following closure of ileostomies or colostomies. Studies including children, trauma as an indication for stoma construction and non-English language studies were excluded. Available unpublished data was included.

Results: 22 studies were included, providing outcomes for 1,783 closed stomas. The overall hernia rate was 7.2% (129/1783) but with a wide range between different studies (0-48%). Loop ileostomies formed the largest proportion of stoma reversals with a hernia rate of 4.7% (52/1102). Loop colostomies formed the next largest group, with a hernia rate of 10.8% (52/480). 22 studies reported clinical rates of hernias, whereas only three studies reported imaging rates. One reported findings from ultrasound scans (32.3%, 10/31), one from CT scans (47.8%, 11/23) and one from CT and MRI (33.3%, 20/60). Ten studies provided data on hernias requiring re-operations was extracted from ten studies, showing a 23.0% (163/53197) rate.

Conclusion: Incisional hernias are commoner following colostomy than ileostomy closure. Reported clinical rates are likely to significantly underestimate true incidence, as identified by ultrasound and CT imaging.

0866 MORBIDITY FOLLOWING COMPLEX EVAR
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Objectives: Patterns of morbidity are poorly characterized for patients undergoing complex EVAR. Evidence for complex endografts is based on case series and morbidity is often poorly reported. Multi organ dysfunction is described but the pathological events triggering this are uncertain. We hypothesised that early postoperative cardiac morbidity occurs as part of multi-organ dysfunction rather than as an isolated ischaemic event.

Methods: A prospective analysis of 41 patients undergoing complex EVAR was undertaken. Primary endpoint was development of cardiac morbidity, on postoperative day 3.

Results: 8 patients underwent thoracoabdominal, 29 juxtarenal fenestrated and 4 iliac branched graft AAA repair. There were 5 deaths, 3 of which were in emergency cases. The most common postoperative morbidities on day 5 were renal (50% of inpatients), respiratory (44%), gastrointestinal (25%) and cardiac (19%). Occurrence of cardiac morbidity on day 3 was associated with increased total morbidity on days 3, 5, 8 and 15 (P<0.04).

Conclusions: Complex EVAR patients suffer non-cardiac morbidity in line with major non-vascular surgery. Early postoperative cardiac morbidity is associated with multi-organ dysfunction in this population indicating a more global pathology. This highlights the need for further study into the aetiology of cardiac injury in this group.

0869 THE ROLE OF INPATIENT FLEXIBLE SIGMOIDOSCOPY FOR INVESTIGATING ACUTE BLEEDS PER RECTUM (PR) AT A DISTRICT GENERAL HOSPITAL (DGH).
Mohsin Khan, Surajit Sinha, David DeFriend. Torbay Hospital, South Devon HealthCare NHS Trust, South Devon, UK

Aim: To investigate role of inpatient flexible sigmoidoscopy in patients presenting with acute PR bleeds.

Method: Case notes of all patients investigated by inpatient flexible sigmoidoscopy for PR bleeds between 1st December 2008 and 28th February 2010 were reviewed retrospectively.

Results: 74 patients (40% male, 60% female), median age 74 years (20-97), were identified. Median time from admission to procedure was 2.7 days (0.5-18). The procedure was incomplete in 58% (n=43) due to inadequate bowel preparation (70%), patient discomfort (16%) and anatomy (9%). Flexible sigmoidoscopy diagnosed colitis (22%), diverticular disease (20%), haemorrhoids (14%), and tumour (4%). Diagnosis was unclear in 22% and normal in 26%. 28 biopsies were taken which demonstrated rectal cancer (3), colitis (10), Proctitis (4), normal (7) and others (4). All 3 rectosigmoid cancers were diagnosed with CT scan before histological confirmation.

Further investigations were done (60% inpatients, 38% outpatients), including completion colonoscopy and CT abdomen. Follow-up colonoscopy detected 3 colorectal cancers initially missed on flexible sigmoidoscopy.

Conclusion: Flexible sigmoidoscopy has a completion rate less than 40%. 50% of cancers, 31% diverticular disease and 25% of colitis were missed on initial flexible sigmoidoscopy. The diagnostic role of inpatient flexible sigmoidoscopy in acute PR bleed should be questioned.

0870 HAS THE INCREASING USE OF DIAGNOSTIC TOOLS REDUCED THE NEGATIVE APPENDECTOMY RATE?
Michael Gale, Daniel Seng, Alan Grant. Dr Gray's Hospital, Elgin, UK

Aims: Misdiagnosis of appendicitis can lead to unnecessary surgery. The potential of diagnostic tests to inform decision-making regarding the diagnosis of appendicitis has long been debated. This study examined the trends in appendectomy following increased utilisation of diagnostic tests.

0861 WORKPLACE BASES ASSESSMENTS: WELSH CORE SURGICAL TRAINEES’ PERSPECTIVE
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Introduction: Work Place Based Assessments (WPBA) serves as a formative assessment tool, and allows for ‘triangulation of evidence’ to judge the abilities of a trainee. There is very little evidence in literature regarding the views of trainees regarding WPBA, and its relevance to their training. The aim of this study was to explore this further.

Methods: A semi-structured questionnaire survey was carried out among the Year 1 CSTs (Core Surgical Trainees) in the Wales Deanery.

Results: 26 CSTs participated in the study. 62% had received training about using WPBA. Only 19% felt that WPBA contributed to their surgical training. 40% agreed that WPBA served as an educational tool. Majority of the trainees (73%) felt that WPBA were difficult to organise, and attributed this to lack of time and enthusiasm among the assessors. Only 15% were in favour of retaining WPBA in the current format, as majority felt that WPBA was not a true reflection of their clinical abilities.

Conclusion: The educational value of the WPBA is undermined by a lack of awareness of its role, both among the assessors and assessee. Creating dedicated time slots, and having a ‘cohort of trainers with an educational interest’ can improve the assessment process.

0863 INVESTIGATION OF SYMPTOMATIC CAROTID ARTERY STENOSIS: IS CONFIRMATORY IMAGING NECESSARY IN ALL CASES?
Jonathan Stanley, Gareth Harrison, Robert Fisher, John Brennan, Richard Williams, Derek Gould, Rao Vallabheneni. Royal Liverpool University Hospital, Liverpool, UK

Purpose: Evidence mandates intervention for symptomatic carotid disease within two weeks. Confirmatory imaging may delay treatment. We studied whether duplex alone is diagnostic.

Materials and Methods: All symptomatic patients with dual imaging from September 2008-2009 were included. Data from primary duplex images, including degree of stenosis by NASCET peak systolic velocity criteria, were compared with confirmatory MRA/CTA reports. Groups were stratified by degree of ipsilateral and contralateral stenosis.

Results: 124 patients underwent dual imaging, median age 69 years (range 45-87). Twenty-two patients (18%) had unilateral 70-99% stenosis. Secondary imaging agreed in all cases (PPV 100%). Duplex identified 17 carotid occlusions (13%); all but one confirmed on secondary imaging (PPV 94%). Twenty-three cases had unilateral 50-69% stenosis; seven were confirmed (PPV 30%). Sixteen patients had 50-99% stenosis with normal velocities; three had significant stenosis on further imaging (19%). Nine patients had 70-99% stenosis with contralateral 50-99% stenosis; eight were confirmed. Median waiting time for confirmation was 6 days (range 0-180).

Conclusion: Confirmatory imaging may not be required with unilateral 70-99% stenosis. Secondary imaging may be indicated for carotid occlusion when a scan is not diagnostic, 50-69% stenosis or for those based upon grayscale measurements alone. Confirmatory imaging may sometimes be unnecessary.