

## Abstracts

## Abstract G194 Table 1

Patient data categories	Laparoscopic	Open	P-Value
Males (%)	53.3	86.7	0.046
Neurological impairment (%)	66.7	100	0.014
Mean age of surgery (years)	7.68 (sd 5.22)	7.32 (sd 5.37)	–
Gastrostomy performed (%)	53.3	60.0	0.713
Other procedure performed (e.g. pyloroplasty) (%)	0.0	46.7	0.003
Mean procedure time (mins)	236 (sd 63)	184 (sd 51)	0.023
Length of high dependency stay (days)	2 (0–6)	3 (1–6)	0.006
Length of hospital stay (days)	4 (2–12)	8 (6–43)	0.003
Length of follow up (years)	1.57 (sd 1.9)	6 (sd 3.7)	0.001
Clinical recurrence (%)	7.7	28.6	0.163

**Methods** A retrospective review was carried out including all Boix-Ochoa Funduplications performed by a single surgeon in the same institution from 1995–2010. All available case notes from the laparoscopic group were analysed, these were matched to a similar number from the open group. Demographic, pre-operative, peri-operative and follow-up data were collated. Surgical outcomes were compared in terms of post-operative complications, length of stay, follow up period and clinical recurrence rates. Data were analysed in Microsoft Excel 2003 and SPSS 16.0. The groups were found to be non-parametric. Mann-Whitney U-test and Chi-squared distribution tests were applied. Statistical significance was taken to be  $p < 0.05$ .

**Results** 71 procedures were recorded during the study period. 49 were open, 22 were laparoscopic. Notes were available for 15 patients in the laparoscopic group. These were matched with 15 patients from the open group.

The laparoscopic group had more females and less neurologically impaired children. The length of stay post laparoscopy was halved compared to open surgery, but the mean operative time was more than 25% longer. The length of follow-up is longer in the open cohort due to the study design. Clinical recurrence rates were statistically similar between the two groups.

**Conclusion** This is a small retrospective analysis of this procedure performed by one surgeon in a single centre. Boix-Ochoa Funduplication appears to be equally effective when performed either open or laparoscopically. The duration of high dependency and hospital stay are significantly reduced with the laparoscopic procedure.

### G195 NEONATAL CRANIAL ULTRASOUND: AN AUDIT OF TRAINEE OPPORTUNITY AND COMPLIANCE

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**Aims** To produce departmental guidelines citing clinical indications regarding the frequency and appropriateness of cranial ultrasound scanning.

To improve documentation and planning of scans to improve time management.

To enhance trainee opportunities in performing and interpreting scans under expert supervision, ultimately leading to improved service provision and confident independent practise.

#### Methods

##### Part 1

Senior speciality paediatric trainee questionnaire to frame context of audit: to assess confidence in performing and interpreting (P&I) cranial ultrasound scans (CrUS) on modified Likert scale; data interpretation questions (published questionnaires, author's permission to use) to gauge ability to identify abnormalities, to decide immediate management and discuss prognosis.

##### Part 2

Full audit cycle of CrUS compliance, implementation and assessment of changes. Audit (cycle 1) over 12-day consecutive period with re-audit 6 months later (cycle 2) after implementing changes.

#### Results

##### Part 1

Trainees reported little confidence with P&I.

All identified major abnormality in each image with sensible answers provided regarding management, however limited information regarding prognosis.

##### Part 2

##### Cycle 1

Poor compliance, documentation and lack of follow up.

Loose scans with no date, time or comment.

No baby had a Standard Electronic Neonatal Database (SEND) CrUS form completed.

Changes implemented

Weekly teaching with Radiologist experienced in CrUS.

Comprehensive guideline including indications and separate proforma for every baby admitted to the unit prompting an assessment for CrUS.

Posters next to scanner and computers to remind users to document findings on SEND.

Presentation of results.

##### Cycle 2

Improved compliance rate from 60.0% to 71.4%

Improved documentation from 28.6% to 100% including signature and level of supervision.

80% of scans documented had plan for follow up scan.

No baby had SEND CrUS form completed.

**Conclusions** Trainee confidence in P&I scans improves with regular Radiology teaching sessions. Dedicated guidelines and proforma improve assessment for scanning, compliance, documentation and work load planning; this improves patient care and enhances service provision. Future action: to standardise CrUS guidelines throughout the Neonatal Network to improve continuity of care.

### G196(P) RESIDUAL SMALL BOWEL LENGTH PREDICTS RAISED D-LACTATE WHEN SCREENING FOR BACTERIAL OVERGROWTH IN CHILDREN WITH INTESTINAL FAILURE

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**Aims** Small bowel bacterial overgrowth (SBBO) may cause non specific symptoms in children with intestinal failure (parenteral nutrition (PN) >28days). Rapid detection of raised serum D-lactate (DL) may be a clinically useful non invasive marker of SBBO. We present the first large cohort of DL in a tertiary referral centre, in patients with current or recent intestinal failure (IF) with new symptoms suggestive of SBBO.

**Methods** Retrospective review over a 3 year period (01/01/2009 to 31/12/2011) of Patients with IF (0–18 years) and suspected SBBO was done. Demographics, aetiology of IF, symptoms, recent radiology and treatment were recorded. In those with short bowel syndrome, length of remaining small bowel was expressed as percentage of expected small bowel length appropriate for age (SBL) using a published formula. Raised DL was identified as  $>20\mu\text{mol/L}$  and recurrence as DL  $>20\mu\text{mol/L}$  at least 4 weeks apart and with standard treatment (rehydration, withholding or alteration of feeds, bicarbonate and/or antibiotics).

**Results** Out of total cohort of 209, 49 patients (28 males; age range 0.16–13.07 and mean 4.76 years) were screened for DL. Aetiology for IF was bowel resection due to congenital malformation (17), necrotising enterocolitis (15), dysmotility (6) and enteropathy (11). 25/49 had raised DL and 24/49 did not have raised DL. There was no



# G195 Neonatal Cranial Ultrasound: An Audit of Trainee Opportunity and Compliance

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