sensitivity, specificity and global accuracy at different score thresholds.

Results Image processing speed by the algorithm was 33 ms/image. This is much faster than the average human visual response latency which is estimated at 70–100 ms. The algorithm was able to detect Barrett's neoplasia with sensitivity of 93%, specificity of 78% and global accuracy of 83% (see figure (1) below for examples of algorithm detection).

Conclusions We developed and validated an early AI algorithm with high sensitivity and reasonable specificity when compared with PIVI criteria. The ultra short image processing time would suggest this algorithm may be suitable for real time detection of Barrett's neoplasia. We will develop this model further for use during real time endoscopy.

07 OUTCOMES FROM THE UK ENDOSCOPIC SUBMUCOSAL DISSECTION (UK ESD) REGISTRY- WHAT HAVE WE LEARNT?

[1]Ejaz Hossain*, [1]S Subramaniam, [1]S Arndtz, [1]M Abdelrahim, [1]G Longcroft-Wheaton, [2]B Saunders, [2]N Suzuki, [3]M Banks, [4]J East, [5]A Haji, [5]B Hayee, [6]A Parra- Blanco, [1]P Bhandari. *[1]Portsmouth Hospital Nhs Trust, Portsmouth, UK; [2]St Marks Hospital, London; [3]University College Hospital, London; [4]John Radcliffe Hospital, London; [5]Kings College Hospital, London; [6]Nottingham University hospitals NHS Trust, Nottingham*

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Introduction The practice of endoscopic submucosal dissection (ESD) for treatment of early gastrointestinal neoplasia has been increasing in the West, however, the uptake has been slow due to a long learning curve and higher complication rate. We aim to analyse UK ESD practice through the development of the first UK national ESD registry.

Methods The UK ESD registry was established in 2016 with 4 major tertiary referral centres which was extended to 6 centres by 2019. Data on different parameters ranging from patient demographics to procedural details were collected on a national web based electronic platform and analysed.

Results A total of 309 ESDs were performed with a completion rate of 99.2%. Standard ESD was performed in 73.5% whereas hybrid ESD was performed in 26.5% cases. The mean lesion size was 38 mm (range 10 – 130 mm).

The overall en bloc resection rate was 86.5%, whereas the R0 resection rate was 72.5%.

There were 12 (3.8%) cases with complications (7 significant bleeds and 5 perforations).

Majority of the colorectal lesions showed a resection histology of LGD (71%) with cancer demonstrated in roughly 10% of the lesions, whereas upper GI lesions showed a higher percentage of atleast SM1 invasive cancer (stomach -61% and oesophagus- 67%).

The mean duration between procedure and first follow up endoscopy was 212 days, with visible recurrence occurring in 23 cases (7.4%).

Further details comparing standard ESD technique and hybrid ESD have been outlined in table 1.

Conclusions We therefore conclude that En bloc resection rates were higher in standard ESD, than in hybrid ESD, however, the latter was involved with fewer complications. Recurrence rates were higher in hybrid ESD compared with standard ESD, however, still lower than for EMR with similar complication rates (specially for colorectal lesions). Although associated with a lower en bloc resection rate and greater recurrence than ESD, hybrid ESD could be an attractive learning step for western endoscopists to be fully competent in standard ESD.

Inflammatory bowel disease

08 RANDOMISED CONTROLLED TRIAL OF ANTIBIOTIC/HYDROXYCHLOROQUINE COMBINATION VERSUS STANDARD BUDESONIDE IN ACTIVE CROHN'S DISEASE (APRICOT)

[1]Jonathan Rhodes*, [1]Sreedhar Subramanian, [2]Paul Flanagan, [3]Graham Horgan, [1]Kate Martin, [4]John Mansfield, [5]Miles Parkes, [6]Ailsa Hart, [7]Helen Dallal, [8]Tariq Iqbal, [9]Jeff Butterworth, [10]Kate Culshaw, [1]Christopher Probert. *[1]Royal Liverpool University Hospital, Liverpool, UK; [2]Wirral University Hospital, Wirral, UK; [3]Biomathematics and Statistics Scotland, Aberdeen, UK; [4]Newcastle upon Tyne Hospitals, Newcastle, UK; [5]Cambridge University Hospitals, Cambridge, UK; [6]St Mark's Hospital, Harrow, UK; [7]James Cook University Hospital, Middlesbrough, UK; [8]Queen Elizabeth Hospital, Birmingham, UK; [9]Shrewsbury and Telford Hospital, Shrewsbury, UK; [10]Liverpool Cancer Trials Unit, Liverpool, UK*

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Introduction Mucosal *E. coli* are increased in Crohn's disease (CD). They replicate within macrophages and are then inaccessible to penicillins and gentamicin. Hydroxychloroquine is used with doxycycline to treat Whipple's disease. It raises macrophage intra-vesicular pH and inhibits replication of bacteria that require acidic pH. Ciprofloxacin and doxycycline are also effective against *E. coli* within macrophages.

Methods Adult patients with active CD (CDAI>220 plus CRP≥5 mg/l and/or faecal calprotectin >250 ugram/g) were randomised to receive (open label) either oral budesonide

Abstract 07 Table 1

	Standard ESD			Hybrid ESD		
	En bloc	**Complication**	**Recurrence**	**En Bloc**	**Complication**	**Recurrence**
Oesophageal (N=88)	76/78=**97.4%**	Bleed: 2/78 **(2.6%)** Perforation: 0	11/78=**14%**	10/10=**100%**	Bleed: 0 Perforation: 0	2/10= **20%**
Gastric (N=87)	76/77=**98.7%**	Bleed: 1/77 **(1.3%)** Perforation: 0	1/77= **1.3%**	9/10=**90%**	Bleed: 0 Perforation: 0	1/10= **10%**
Duodenal (N=6)	1/1= **100%**	Bleed: 0 Perforation:0	0	4/5= **80%**	Bleed: 0 Perforation : 1/5 (20%)	1/5= **20%**
Colorectal (N=128)	68/70=**97.1%**	Bleed: 3/70 **(4.3%)** Perf: 2/70 **(2.9%)**	3/70= **4.2%**	20/58=**34.5%**	Bleed: 1/58 **(1.7%)** Perf: 2/58 **(3.4%)**	4/58=**6.9%**

Abstract O8 Table 1 Per protocol outcomes, including cross-over (Primary endpoints in bold)

	Remission 10w	Remission maintained to 6 m	Remission maintained to 12 m	Rem. &/or response 10w	Remission 4wk
AB/HCQ	**7/27**	**6/24 (plus 3 10wk responders in rem @ 6m)**	**3/23 (plus 1 10wk responder in rem @ 12m; plus 1 clin rem but WD UTI)**	15/27	8/30
Budesonide	**10/34**	**1/32 P=0.035 (preset significance threshold of P= 0.02 to allow for multiple testing)**	**1/31**	13/34	9/37

(Entocort CR 9 mg/day 8 weeks, then 6 mg/day 2 weeks and 3 mg/day 2 weeks) or antibiotics/hydroxychloroquine (AB/HCQ) - oral ciprofloxacin 500 mg bd, doxycycline 100 mg bd, hydroxychloroquine 200 mgs tds for 4 weeks, followed by doxycycline 100 mg bd and hydroxychloroquine 200 mgs tds for 20 weeks. Use of anti-TNF in the previous 3 months was an exclusion. Primary endpoints were remission (CDAI </=150) at 10 weeks, remission maintained to 24 weeks, and remission maintained to 52 weeks. Patients not responding by 10 weeks were invited to cross-over onto the alternative therapy.

Results 59 patients were recruited across 8 sites, lower than target (100) as recruitment slowed due to widening access to biologics. Including cross-over, 39 patients received AB/HCQ and 39 received budesonide. No significant differences were seen comparing AB/HCQ with budesonide at 10, 24 or 52 weeks on either intention-to-treat or per protocol analysis (see table 1). Withdrawals by 10 weeks due to adverse events were seen in 16 AB/HCQ and 7 budesonide. When patients on AB/HCQ who responded at 10 weeks and later remitted were included, 9/24 patients were in remission at 24 weeks and 4/23 at 52 weeks. No correlation was seen between response to AB/HCQ and ASCA/OmpC status.

Conclusions The long term remissions seen with AB/HCQ are encouraging and justify a phase 3 study.

O9 STOP-COLITIS PILOT: PROSPECTIVE, OPEN-LABEL, RANDOMISED STUDY COMPARING NASOGASTRIC VERSUS COLONIC FMT DELIVERY IN ULCERATIVE COLITIS

[1]Mohammed Nabil Quraishi*, [2]Mehmet Yalchin, [3]Clare Blackwell, [2]Jonathan Segal, [1]Naveen Sharma, [1]Peter Hawkey, [1]Victoria McCune, [4]Catherine Hewitt, [4]Natalie J Ives, [4]Shrushma Loi, [4]Laura Magill, [1]Susan Manzoor, [5]Konstantinos Gerasimidis, [6]Nicholas J Loman, [7]Christel McMullan, [7]Jonathan Mathers, [8]Christopher Quince, [9]Nicola Crees, [10]Richard Hansen, [2]Ailsa L Hart, [3]Daniel R Gaya, [1]Tariq H Iqbal. *[1]University of Birmingham Microbiome Treatment Centre, Birmingham, UK; [2]Department of Gastroenterology, St Marks Hospital, UK; [3]Gastroenterology Unit, Glasgow Royal Infirmary, UK; [4]Clinical Trials Unit, University of Birmingham, UK; [5]Human Nutrition, University of Glasgow, Glasgow, UK; [6]Institute of Microbiology and Infection, University of Birmingham, Birmingham, UK; [7]Institute of Applied Health Research, University of Birmingham, UK; [8]Warwick Medical School, University of Warwick, UK; [9]Crohn's and Colitis UK, UK; [10]Department of Paediatric Gastroenterology, Royal Hospital for Children Glasgow, Glasgow, UK*

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Introduction Although faecal microbiota transplantation (FMT) appears to hold therapeutic potential for ulcerative colitis (UC), the optimal administration route and dose of FMT is unknown. This pilot trial aimed to identify the optimal route of administration to further test in an RCT.

Methods In this prospective, three-centre, open-label, randomised study (STOP-Colitis pilot), we compared delivery of FMT via the naso-gastric (NG) or colonic (COLON) route in adult patients with active UC. Participants were administered 8 infusions of FMT over an 8 week period. Clinical response was defined as ≥3 point and ≥30% reduction in Mayo score at week 8 compared to baseline. Clinical remission was defined as Mayo score of ≤2, with no subscore >1 at week 8. The primary outcome was based on clinical response and safety at weeks 8 and 12, along with qualitative assessment of acceptability.

Results 30 participants were randomised between March 2018 and April 2019; 16 to NG; 14 to COLON. 8 in NG arm and 2 patients in the COLON arm withdrew from the study before completion. Clinical response was achieved in more participants who received FMT via COLON compared with NG (9/12 [75%] vs 2/8 [25%]; adjusted relative risk [RR] 2.94 [95% CI, 0.84, 10.30]). Clinical remission was observed in more participants undergoing FMT via COLON compared to NG (6/12 [50%] vs 2/8 [25%] respectively; RR 1.89 [95% CI, 0.51, 6.99]). IBDQ and SF-36 scores at week 8 and 12 were similar in NG and COLON groups. Qualitative analysis showed greater patient and clinician acceptability for colonic delivery. There were three serious adverse events (one considered a serious adverse event) in 2 participants in the NG arm, and none in the COLON arm.

Conclusion This pilot study suggests that in patients with active UC, FMT delivered via the COLON route appears to be safe and better tolerated with signals suggesting greater efficacy compared to the NG route. A randomised, double-blind, placebo-controlled trial of colonic delivery of FMT is now underway to determine clinical efficacy and safety.

O10 NORMALISATION OF CALPROTECTIN WITHIN 12-MONTHS OF DIAGNOSIS IS ASSOCIATED WITH REDUCED DISEASE PROGRESSION IN CROHNS

Nikolas Plevris*, James Fulforth, Philip Jenkinson, Spyros Siakavellas, Mathew Lyons, Rebecca Pattenden, Ian Arnott, Gareth Jones, Charlie Lees. *Edinburgh IBD Unit, Edinburgh, UK*

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Introduction Faecal calprotectin (FC) demonstrates excellent correlation with endoscopic inflammation. In addition, a treatment-decision algorithm for Crohn's disease (CD) incorporating FC outperforms and improves 12-month mucosal healing