Methods 80 datasets of clinical images were reviewed by 3 assessors yielding a median RIQI score from 30 observations for 8 independently practising colonoscopists. This was correlated against annual KPI data for each colonoscopist – including CIR (%), PDR (%) and median WDT (mins). Pearson Rank correlation was performed.

Results Median RIQI scores for the 8 colonoscopists ranged from 2 to 10 (<5= poor; 6–8=moderate, 9–10=high image quality). Unadjusted CIR ranged from 81.6% to 95.0%; PDR from 24.2% to 64.5% and median WDT from 7 to 19 min. Median RIQI scores had a moderate to good positive correlation with existing KPIs – correlation values: CIR r=0.59; PDR r=0.53; WDT=0.54.

Conclusions The RIQI score is a novel KPI assessing the recording of image quality. This is a surrogate marker of both tip control and ability to identify, wash and assess lesions. We have demonstrated that the RIQI score shows positive correlation with other commonly used KPIs in colonoscopy and further work is anticipated in exploring its role in upper GI endoscopy aligned to the BSG Quality Standards.1

REFERENCE

Abstracts

**PTH-072 TRAINING FUTURE INTERVENTIONAL ENDOSCOPISTS: OUTCOMES OF TRAINEE PERFORMED COLORECTAL COMPLEX EMR/PEMR IN A TERTIARY CENTRE**

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Introduction Despite the widespread use of endoscopic mucosal resection (EMR) and piecemeal EMR (pEMR) to treat large colorectal superficial neoplastic lesions, training and competence in complex endoscopic resection (ER) in western centres takes place almost exclusively during specialist practice after the completion of residency. There are no accredited western training programs in advanced ER and no reports of outcomes of complex ER performed by trainees. However, as the use of advanced ER to treat CSNL increases, it is conceivable that training in complex ER takes place during residency for selected trainees. Our tertiary referral unit has been training 2 residents in advanced colorectal lesion assessment and EMR since January 2016. We evaluated the outcomes of complex EMR performed by trainees during this period.

Methods All EMR and pEMR of large (≥2 cm) CSNL performed from January 2016 to October 2017 were included. Lesions resected using ESD were excluded. ER were performed by 2 specialist interventional endoscopist trainers and 2 residents. The residents were already accredited for independent practice for diagnostic colonoscopy and polypectomy ≤2 cm. Patient and lesion characteristics were described and outcomes including failed ER, complications and recurrence for EMR performed by residents and trainers were compared.

Results 238 ER of colorectal lesions ≥2 cm were performed during the study period. After excluding procedures for recurrent lesions (n=16) and procedures using ESD/Hybrid ESD (n=78), 144 lesions resected using EMR/pEMR were included. 60 ER were performed by residents (42%). The mean patient age was 69.5 years (male=40). The mean size of resident performed EMR was 34.3 mm ± 10.7 mm (range 20 mm-60 mm) versus 52.6 mm ± 32.3 mm for ER performed by trainers (p<0.001). Lesions were located in the right colon (n=33),
left colon (n=20) and rectum (n=7). Compared to ER performed by trainers, there were no differences in failure to achieve endoscopic clearance (p=0.09), complications (p=0.67), intraprocedural bleeding (p=0.32) or recurrence (p=0.42).

**Conclusions** These results show that, in a specialist unit with experienced trainers, it is safe to train residents in complex EMR/pEMR who can perform the techniques safely in large CSNL with good outcomes. Significant prior experience in diagnostic colonoscopy is important but the skills for advanced assessment and EMR can subsequently be acquired in the right setting.

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### PTH-073: Radiological Staging Investigations Before Endoscopic Resection of Large Colorectal Lesions: Significant Burden with No Benefit

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**Introduction** Endoscopic resection (ER) is increasingly used for curative treatment of large colorectal superficial neoplastic lesions (CSNL). Experts believe that accurate lesion assessment and in vivo diagnosis should guide treatment decisions for such lesions, however in western practice skills in lesion assessment are less robust and patients frequently undergo biopsy sampling and pre-procedure radiological staging investigations as for any suspected colorectal cancer. For large rectal lesions, many consider pelvic MRI obligatory. The value of such investigations in this context is not clear.

**Methods** All ER of large (>20 mm) CSNLs referred to a tertiary unit were included. Data was collected from clinical letters, endoscopy and radiology reports from the referring department as well as the lesion assessment, treatment and final histopathology at our institution. Details of the findings of computed tomography (CT) scans, need for subsequent imaging and potential staging of rectal tumours by MRI were recorded.

**Results** 579 CSNLs >20 mm were treated with ER. 177 patients (31%) had received a staging CT of the thorax, abdomen and pelvis prior to referral. Of 163 rectal tumours, 67 (41%) had received a staging MRI. The findings of the CT scan did not change the management of the CSNL in any patients. Incidental findings were reported in 28 patients (16%). As a result 25 (89%) went on to require further imaging or referral to other clinicians which resulted in treatment or specialist consultations without meaningful outcome.

**Conclusion** SMSA score was calculated and SMSA level 4 compared with level 2-3 for outcomes including failed ER, ≥2 ER to achieve clearance, complications and recurrence. Multivariate logistic regression was performed to determine independent predictors of complications and recurrence.

**Results** ER was performed for 542 lesions (mean size 53.7 mm). SMSA level 4 was not associated with an increased risk of failed ER (OR 0.06, 95% CI 0.007–0.44, p<0.001) or requirement of ≥2 ER to achieve clearance (OR 3.96, 95% CI 0.49–31.9, p=0.16). Although SMSA level 4 was associated with complications (OR 5.25, 95% CI 1.58–17.5, p=0.002), it was not associated with perforation and a simple assessment of either large lesion size (>50 mm) or difficult access was similarly associated with complications (OR 4.27, 95% CI 1.47–12.4, p=0.004). Multivariate logistic regression revealed only age (p<0.001), prior heavy manipulation (p=0.03), and ESD/ Hybrid ESD (p=0.02) were independently associated with complications but not SMSA level 4 (p=0.06).

**Conclusion** SMSA level 4 was associated with recurrence (OR 10.8, 95% CI 2.59–45.2, p<0.001), as was either large lesion size or difficult access (OR 6.35, 95% CI 2.47–16.33, p<0.001). On multivariate logistic regression only large size/difficult access (p=0.03) and piecemeal resection (p=0.003) were associated with recurrence but not SMSA level 4. **Conclusion** SMSA level 4 was not associated with failed ER or multiple ERs to achieve clearance. It was not an independent predictor of complications or recurrence on multivariate logistic regression. Although relatively simple, the SMSA score is somewhat difficult to rapidly calculate and stratify lesions. For practical purposes when making a judgement during a procedure, it may be as useful to use a simple assessment of large lesion size or difficulty in accessing the lesion.