66 yrs) died during their admission, 2 of whom had an OGD for GIB prior to death but neither was on a DOAC. The remaining 4142 patients (2677 M, mean age 63.8 yrs; 1465 F, mean age 67.5 yrs) were on the following at discharge: monotherapy Aspirin (A) 556, Clopidogrel (C) 190, Ticagrelor (T) 0, R 83, Ap 12, E 3; warfarin therapy 59.

dual therapy A+C/T/DOAC 1573; triple therapy (A+C/T +DOAC) 35

C + (A/DOAC/T)- 508; triple therapy (C+A/T+DOAC) 28

T + (A/DOAC/C)- 1089; triple therapy (T+A/C + DOAC) 6

There were 449 gastroscopies (11%) done during the study period and for 6 months thereafter. The indications were: GIB – 68 (15%) (46M mean age 62, 23F, mean age 66), anaemia 215 (48%), dyspepsia 157 (35%).

Out of 68 patients with suspected GIB, there were 3 cases of active bleeding at the time of the OGD – X1 DU (on A), X1 Mallory Weiss tear, X1 duodenitis (both on A+T). There was 1 oesophagitis without active bleeding and the remaining 64 OGDs did not show any abnormality. There were no cases of acute GIB in patients on DOACs in this cohort.

Including the 2 patients who had a GIB and died (mortality 0.05%), there were in total 5 cases of acute GIB at the time of OGD (0.12% severe GIB risk).

Conclusion Allowing for the retrospective nature of the study, the short follow up for some patients and the lack of information on the concurrent use of PPIs, our real world study shows a very low GIB risk for cardiology patients on antiplatelets ± DOACs (0.12%). The mortality in this cardiology cohort was also very low. This compares well with the published 1% risk for GIB for patients on DOACs for all other indications.[2] Our results are therefore very reassuring.

REFERENCES
1. Holster, et al. *Gastroenterology*. 2013; **145**: 105–112.e15
2. Gu, et al. *CGH* 2019 DOI: https://doi.org/10.1016/j.cgh.2019.05.056

| P51 | A VALIDATED PATIENT REPORTED EXPERIENCE MEASURE FOR GASTROINTESTINAL ENDOSCOPY: THE NEWCASTLE ENDOPREM™ |

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Introduction Gastrointestinal (GI) endoscopy and computed tomography colonography (CTC) are crucial diagnostic and therapeutic procedures. Measuring patient experience of GI procedures allows evaluation of quality of patient care, identification of areas requiring improvement and, hence, helps optimise patient outcomes.[1]Patient Reported Experience Measures (PREMs) should be patient-derived, however, current measures are clinician derived.[2] This study used the patient's perspective to develop a PREM for GI procedures. #

Methods The study comprised four phases. Phase 1: –qualitative semi-structured interviews with patients who had recently undergone endoscopy/CTC. Thematic analysis identified important aspects of experience, and determined whether these were similar, or differed, across GI modalities. Phase 2: A draft PREM was developed from the phase 1 analysis and refined by the study team. Further refinement was undertaken in rounds of cognitive interviews with patients. Phase 3: The pilot PREM was prospectively administered, for self-completion, to patients following a GI procedure at four sites in North East England. The psychometric properties of the PREM were investigated. Phase 4: Review and revision.

Results Phase 1: Six themes were identified from 35 patient interviews: anxiety, expectations, information & communication, embarrassment & dignity, choice &control and comfort. These were seen for colonoscopy, OGD and CTC. Phase 2: Themes were structured by procedural stage (before the procedure, at the hospital, during the procedure, after the procedure). The draft PREM was refined iteratively during five rounds of cognitive interviews with 15 patients. Phase 3: Between October 2017 and September 2018 the pilot PREM was prospectively administered, for self-completion, to 1650 patients. The response rate was 48.4% (n=799). The instrument had good psychometric properties and was found to contain 7 subscales. Phase 4: Redundant questions were removed, some wording was refined, and the questionnaire finalised. The final instrument includes 54 questions.

Conclusions The Newcastle ENDOPREM™ assesses all aspects of the GI procedure experience. It will be used for measuring patient experience in clinical practice and within endoscopy trials. The PREM is now undergoing international validation.

REFERENCES
1. Rees CJ, et al. BSG position statement on patient experience of GI endoscopy. *Gut* 2019; DOI: 10.1136/gutjnl-2019-319027
2. Brown S, et al. Patient-derived measures of GI endoscopy: a meta-narrative review of the literature. *Gastrointest Endosc* 2015;**81**(5):1130–40

| P52 | MEASURING PATIENT EXPERIENCE OF GI ENDOSCOPY: PSYCHOMETRIC PROPERTIES OF THE NEWCASTLE ENDOPREM™ |

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Introduction Gastrointestinal (GI) endoscopy and computed tomography colonoscopy (CTC) are widely performed investigations of the GI tract. Patient experience affects future uptake, attendance for surveillance and correlates with outcomes.[1] Current measures of experience are clinician and nurse-derived.[2] The Newcastle ENDOPREM™ was developed using a rigorous systematic process based on qualitative patient interviews.[3] This study aimed to investigate the psychometric properties of the instrument.

Methods Patients aged ≥18 years, undergoing oesophagogastroduodenoscopy (OGD), colonoscopy or CTC at four sites in North East England were prospectively asked to complete the PREM. Using IBM®SPSS® 24, we examined response rates and patterns, missing values, floor and ceiling effects and item-total correlations. Exploratory factor analysis (EFA) was conducted using principal components analysis. Reliability of factors was assessed using Cronbach's α.

Results 799 questionnaires were returned from Oct 2017 – Sept 2018 (response rate 48.4%). Respondents were aged 18–95 years (mean 65.3, SD 12.6), 43.3% were male and 41.1% had undergone OGD, 43.3% colonoscopy and 14.4% CTC. 24 of the 59 questions had a ceiling effect (>40% choosing

the 'best' response). No questions had floor effects. For three questions, more than 5% of respondents failed to answer. The highest was 8.6%. The mean number of questions missed was 1.2; this was higher in older patients. Eight questions correlated poorly with others (rho<0.3) and were excluded from EFA. EFA showed seven factors, explaining 61.5% of the variance. All factors had Cronbach's α >0.6, indicating good reliability.[3]

Conclusions The Newcastle ENDOPREM™ has good psychometric properties. This analysis has enabled refinement of some questions and item reduction, resulting in a PREM, derived from patients' reports, which comprehensively assesses patient experience across GI investigative modalities.

REFERENCES
1. Ekkelenkamp VE, et al. Patient comfort and quality in colonoscopy. World J Gastroenterol 2013;19(15):2355–61
2. Brown S, et al. Patient-derived measures of GI endoscopy: a meta-narrative review of the literature. Gastrointest Endosc 2015;81(5):1130–40
3. Neilson LJ et al. Patient experience of gastrointestinal endoscopy: informing the development of the Newcastle ENDOPREMTM. Frontline Gastroenterol 2020;0:1–9.

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Introduction Thorough mucosal examination at colonoscopy is essential to detect pathology and ensure high quality procedures. Adenoma detection rate (ADR), defined as the number of colonoscopies where at least one adenoma is detected, is the most important marker of colonic mucosal visualisation and therefore of colonoscopy quality. Histology results are required, making the use of ADR challenging. Polyp detection rate (PDR) is more readily available as it can be collected directly on endoscopy reporting systems. The use of PDR as a substitute for ADR has been deemed acceptable providing it accurately reflects ADR.[1] We aim to investigate whether PDR can be reliably used as an alternative to ADR and therefore as a marker of colonoscopy quality.

Methods Data were collected from independent endoscopists in eight hospitals in England over a six-month period, including; ADR, PDR, PDR excluding rectal hyperplastic polyps (RHP), mean patient age. The ADR:PDR ratio (APDRQ) per endoscopist and Pearson correlation between ADR and PDR were computed, including and excluding rectal hyperplastic polyps. Multiple linear regression analysis was used to develop a model to predict an endoscopist's ADR from their PDR.

Results 9265 colonoscopies performed by 118 endoscopists were included. Mean ADR and PDR per endoscopist were 17% (range 0–36.3, sd 7.37) and 27.2% (range 0–57.5, sd 9.3), respectively. The mean APDRQ was 0.60 (range 0–1.00, sd 0.21); this was 0.64 (range 0–1.17, sd 0.21) when RHPs were excluded. ADR and PDR were strongly correlated (rho=0.75, p<0.001; rho=0.80, p<0.001 after excluding RHP). Colonoscopists who scoped patients with mean age ≥60 years had higher mean ADRs (≥60 years: 17.4%, sd 7.4; <60 years: 26.5%, sd 8.9). A similar pattern was seen for PDR (mean patient age <60 years: 26.5%, sd 8.9; ≥60 years:

27.7%, sd 9.5). ADR was more accurately predicted by a combination of PDR and mean age of patients (ADR=0.54*PDR+0.26*mean patient age).

Conclusions This study demonstrates that PDR can accurately be used as a marker of ADR as long as age is also considered.

REFERENCE
1. Rees CJ, et al. UK key performance indicators and quality assurance standards for colonoscopy. Gut 2016;65:1923–9

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Introduction UK key performance indicators (KPI) and quality assurance standards for colonoscopy have been established in order to ensure minimal standards and reduce unacceptable variation in quality.[1] Included within these standards is the requirement for a minimum of 200 colonoscopies to achieve competence and 100 per annum to maintain competence. We investigated the link between number of procedures and the minimal standards for two other KPIs- caecal intubation rate (CIR) and adenoma detection rate (ADR).

Methods Data were collected from independent colonoscopists in eight hospitals in England over a six-month period. Gastroenterologists, surgeons and nurse endoscopists were included. The link between three KPIs was investigated; ≥100 colonoscopies in 12 months (as six-month data was collected, ≥50 procedures in this timeframe were used); CIR ≥90% and ADR ≥15%. Associations between pairs of KPIs were tested. Multiple logistic regression was used to investigate inter-relationships between KPIs and additional factors (including endoscopist grade, mean patient age, patient sex, hyoscine butylbromide use), with low ADR as the outcome variable.

Results 118 endoscopists undertook 9,265 colonoscopies in six months. The mean number of colonoscopies conducted in six months was 78.5 (range 4–334, standard deviation (sd) 61). The mean ADR and CIR were 17% (range 0–36.6, sd 7.37) and 91.2% (range 55.5–100, sd 6.6), respectively.

61% of endoscopists achieved ADR ≥15%, 65% had CIR ≥90% and 64% performed ≥50 colonoscopies in six months. Of those who performed ≥50 colonoscopies in six months, 68% met ADR and 69% met CIR performance metrics. 29% of colonoscopists met all three KPIs.

36% of colonoscopists performed <50 colonoscopies in six months (mean 27.6 procedures, sd 12.5). In this group, mean ADR was 13.2% (sd 8.1) and mean CIR was 89% (sd 9.6). 49% had ADR ≥15% and 58% had CIR ≥90%. 33% met both KPIs for ADR and CIR.

Total number of colonoscopies and ADR were significantly associated (p=0.04), but total colonoscopies and CIR were not. In multiple regression analyses, undertaking fewer colonoscopies and using hyoscine butylbromide less frequently was significantly associated with ADR <15%. CIR, endoscopist grade,% male patients, mean patient age and CIR were not significantly related to ADR<15.