

Methylation of the *SFRP4* promoter was significantly ($p=0.001$) greater in biopsies from those at higher CRC risk. In addition, increasing age (a strong modulator of CRC risk) was significantly ($p<0.001$) associated with increased *SFRP4* methylation.

Conclusion This study showed that *SFRP4* methylation is significantly greater in macroscopically normal rectal biopsies from those at higher CRC risk. This aberrant epigenetic mark may be causal for CRC risk and further studies are needed to investigate whether methylation of *SFRP4* is reversible by dietary and other interventions.

Competing interests None declared.

PWE-085 AGE-RELATED CHANGES IN DIVERTICULAR DISEASE ADMISSIONS IN SCOTTISH HOSPITALS 2000–2010

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Introduction Recent studies suggest that acute admissions for diverticular disease (DD) are increasing in younger age groups. Verification of this trend in Scotland and examination of treatment patterns by age will help in the understanding of DD and may establish better hospital treatment pathways for DD patients.

Methods The Scottish Morbidity Record (SMR01) Linked Database was utilised to extract data on hospital admissions with a primary diagnosis of DD (ICD-10 code K572-K579) from 2000 to 2010. These were categorised into three treatment groups: diagnostic (investigational), medical (ie, receiving medical therapy only) and surgical (ie, having an operation). For each group, the incidence of admissions was determined by year of admission and then stratified by age (<45, 45–54, 55–64, 65–74, 75–84 and 85+ years). Proportions of admissions by age group were determined.

Results Admissions for DD increased from 6591 in 2000 to 10 228 in 2010 (55%). The largest numerical increase (2957, 57.1%) was seen in diagnostic admissions, while the greatest percentage change was seen in medical admissions (688, 73.1%). Surgical interventions remained stable (Abstract PWE-085 table 1). There was little difference in the age-related incidence of diagnostic admissions between 2000 and 2010. In patients <55 years, medical admissions increased between 2000 and 2010 (17.6% [166/941] vs 25.7% [418/1629]). The proportion of surgical admissions in patients 55–64 years also increased (19.2% to 28.5%) but decreased in the 65–74 year group (29.1% to 22.9%). There was little change in admission types among other age groups between 2000 and 2010.

Abstract PWE-085 Table 1 DD admission type and age-band—incidence and % of annual admissions 2000 and 2010

Type Year	Diagnostic		Medical		Surgical	
	2000	2010	2000	2010	2000	2010
N	5175	81321	941	1629	475	467
(% change)		(+57.1%)		(+73.1%)		(–1.6%)
<45	193 (3.7%)	275 (3.4%)	34 (3.6%)	158 (9.7%)	41 (8.6%)	41 (8.8%)
45–54	523 (10.1%)	965 (11.9%)	132 (14.0%)	260 (16.0%)	88 (18.5%)	81 (17.3%)
55–64	1057 (20.4%)	1921 (23.6%)	144 (15.3%)	325 (20.0%)	91 (19.2%)	133 (28.5%)
65–74	1682 (32.5%)	2476 (30.4%)	257 (27.3%)	373 (22.9%)	138 (29.1%)	107 (22.9%)
75–84	1337 (25.8%)	2045 (25.1%)	242 (25.7%)	350 (21.5%)	94 (19.8%)	89 (19.1%)
85+	383 (7.4%)	450 (5.5%)	132 (14.0%)	163 (10.0%)	23 (4.8%)	16 (3.4%)

Conclusion DD admissions are increasing in Scotland due to rises in diagnostic and medical admissions. There was no age-related change in the proportion of diagnostic admissions between 2000 and 2010, but there was an increase in DD patients <55 years managed

medically. There appeared to be a shift away from surgery in patients 65–74 years towards those in the age band 55–64 years.

Competing interests H Paterson Grant/Research Support from: Shire Pharmaceuticals Inc, I Arnott Grant/Research Support from: Shire Pharmaceuticals Inc.

PWE-086 POLYP SIZE MEASUREMENTS IN THE BOWEL CANCER SCREENING PROGRAMME

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Introduction Polyp size is a principal factor used to determine surveillance intervals both nationally and internationally, and is an independent risk factor for the malignant potential of colorectal lesions. There is uncertainty regarding the most accurate method of measurement of colonic polyps, between the in situ and post-formalin fixation measurements. This study aims to determine the preferred polyp measurement for use in determining surveillance intervals and compare post-fixation polyp measurements using three different devices.

Methods 107 consecutive colorectal polyps were measured in situ, pre-fixation and post-fixation to the nearest millimetre. Post-fixation measurements were recorded using a metal ruler, callipers and a graduated magnifying lens. One sample t-tests and the Kruskal–Wallis test were used for data analysis.

Results Pre-fixation ruler measurements were significantly higher than both in situ and post-fixation ruler measurements ($p<0.05$). However no significant difference was observed between in situ and post-fixation measurements ($p=0.36$). In situ measurements were associated with a higher rate of surveillance group variation than post-fixation measurements (9.3% vs 5.6%). No significant difference was seen between measurements obtained by the three different devices post-fixation ($p=0.89$).

Conclusion Post-fixation polyp size measurements are associated with lower rates of surveillance variation and may be considered the preferred measurement. On average colonoscopists underestimated polyp size. In the absence of a clinically significant difference between measurement devices, we advise the ruler be used for post-fixation measurements due to its widespread availability.

Competing interests None declared.

PWE-087 COLONOSCOPY DEMAND AND ADHERENCE TO POLYP SURVEILLANCE GUIDELINES

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Introduction Demand for colonoscopy is projected to increase by 5–10% per annum. Many units are struggling to match the demand to existing capacity. A significant proportion of endoscopy unit workload is related to follow-up colonoscopy in patients with a previous history of colorectal adenomas. Non-adherence to the BSG polyp surveillance guidelines could result in either excess demand for colonoscopy or inappropriate delays in diagnosing advanced colorectal neoplasia.

Methods We retrospectively searched the Trust's endoscopy database (catchment population 520 000) to assess our compliance to the