50% of patients (pts.) die of CRC annualy, one of the reasons being late diagnosis (>50% pts diagnosed in stage 3/4). 5 year survival increased in CR by 10%/last decade: exceeds 60%, leading to increased prevalence of CRC by 64%. Alarming data is that 20.5% of these pts. are younger than 60 yrs. Screening programme (ScP) in CR was introduced in 2000 as opportunistic double-step programme based on GP provided gFOBT test. Screening colonocopies were introduced in 2009 and are evaluated by Czech Statistical Center. Currently: 225 screening centres (audited for quality and safety by Ministry of Health).

Methods Top 4 problems of ScP: 1. Insufficient coverage of target population (25% in 2011 × 45% to 65% is desirable). 2. Incomplete switch to iFOBT although the numbers are increasing (71% in 2013 iFOBT). Optimal cut-off for our population in Czech pilot study =75 ng/ml 3. Roughly 16% pts. in whom CRC was not their first cancer (probably reflects our "tunnel vision") 4. Measures of good quality colonoscopy are not regularly evaluated by all centres. Overall in CR, ADR in 2006–12= 33% for FOBT+colonoscopies and 25% for scr. colonoscopies.

Results Quality of colonoscopy is one of the crucial points of ScP success–results of our screening centre: Endoscopist No. of colonoscopies/yr–ADR2010–2011–2012–2013-Caecal int. rate

E1 457/277/243/383–40.3% >44.3% >34.6% >40.7% >99/99.3/97.1/100 E2 280/279/389/601–40.7% >32.2% >35.3% >40.5% >97.2/95/98.7/99.3 E3 227/174/162/160–23.6% >26.9% >27.0% >36.6% >93.5/92.5/89/85.7 E4 167/145/267/330–28.6% >19.6% >20.9% >19.0% 99.2/89.7/96.9/95 E5 (as of 2011)–/116/115/176–30.5% >28% >22.9% >–/86.3/91.3/93. It is advisable that endoscopists with ADR <20% measure their extubation time regularly. ADR (2013) of screening colonoscopies = 33.8% (M40.0%, F27.2%). Of interest is also a non-negligible number of adenomas in patients <50 years (11.1% in 2013). Future: Personalised invitation. To increase the effectiveness of ScP, in 2014 started system of population-wide personalised invitations. Health Insurance Companies invite clients who did not undergo any screening during last 5 years (birthday letter): uniform algorithm of invitations. Number of screen colonoscopies should increase by 20–30% and we expect some harvesting effect (increased incidence of CRC during first years). It should lead to earlier diagnosis and treatment of CRC and should bring savings.

Conclusion Opportunistic ScP in CR during last 3 years reached achievable limit and system of population-wide personalised invitation letters by health care payers should lead to increased uptake of screening colonoscopies. The necessity of good quality colonoscopy service for the community is also ´Conditio sine qua non´ for the programme to be effective.

Disclosure of Interest None Declared.

PWE-014 JESREY FLEXIBLE SIGMOIDOSCOPY BOWEL CANCER PROGRAMME: ONE YEAR'S EXPERIENCE

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Introduction Randomised control trials (RCTs) have demonstrated that once-only flexible sigmoidoscopy (FS) between ages of 55 to 64 reduces both incidence and mortality from colorectal cancer. A key marker of quality in FS screening is adenoma detection rate (ADR), which relies on effective bowel preparation and good technique. The States of Jersey introduced once-only FS at age 60 in February 2013. This study aims to evaluate the one-year outcomes of the programme.

Methods Jersey residents aged 60 were invited by post to participate in the programme. Responders were telephone pre-assessed for eligiblity and bowel habit and assigned one of two bowel cleansing regimes; two fleet enemas + senna/bisacodyl or moviprep. FS were performed, unsedated, by two experienced gastroenterologists using paediatric colonoscopes, with the aim of visualising at least 60cm (straightened endoscope) of the left colon. Clients with poor bowel preparation had additional fleet enema and re-scoped on the same day or returned on a later day following moviprep. All polyps =1 cm were removed during FS. Indication for colonoscopy was the presence of high-risk lesions (adenoma =1 cm, adenoma with high grade dysplasia or a villous component and = 3 adenomas). After FS, clients were given a questionnaire, which included a pain score.

Results 768 clients were invited. 60 were ineligible. 453 had the FS. The uptake was 69.2% and overall ADR was 15.7% (Table 1) which are higher than in the RCTs.

Abstract PWE-014 Table 1

		Adenomas detected (%)		
	No. screened (M/F)	Low risk (%)	High risk (%)	Total
Endoscopist 1	244 (120/124)	23	13	36
Endoscopist 2	209 (94/115)	24	11	35
	453 (213/239)	74 (16.3%)	24 (5.3%)	71 (15.7%)

FS was well tolarated. Only 36 (13.9%) required entonox. 79% reported no or mild discomfort and only 1% reported severe discomfort. 1 client had an incomplete examination due to pain.

435 (96.03%) had 2 fleet enemas plus senna or bisacodyl and 18 (3.97%) had moviprep as the first bowel prep. The quality was excellent or good in 83%. Only 32 (7%) had poor prep and needed repeat bowel preperation.

There were no major complications during bowel preperation or the FS. 1 patient reported abdominal cramps during bowel preparation and 2 and vasovagal episodes immediately after the FS. None required hospital admission.

Conclusion FS screening using two enemas is acceptable and safe. Better bowel preparation and complete examination of the left colon contributed to the high ADR. The impact of the uptake and high ADR on the incidence and mortality of CRC in Jersey will likley be greater than that seen in the RCTs.

Disclosure of Interest None Declared.

PWE-015 BIOMARKERS FOR EARLY DETECTION OF COLORECTAL CANCER AND POLYPS: SYSTEMATIC REVIEW

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Introduction Early detection of colorectal cancer plays an important role in patient survival. A screening program for colorectal cancer has been proven to reduce mortality from the disease. There is a growing interest in potential biomarkers to predict early colorectal cancer as current screening modalities

lack compliance and specificity. The aim of this study was to systematically review the recent literature to identify all published biomarkers for early detection of colorectal cancer and polyps; to summarise performance characteristics of each biomarker and to test if they can be used for designing new screening tests for colorectal cancer.

Methods Literature searches were conducted according to PRISMA guidelines, of Medline, EMBASE and PubMed databases for relevant papers since the most recent systematic review in 2007. The review focused on human studies reporting on early detection of colorectal cancer and/or colorectal polyps using biomarkers. The studies were categorised into faecal, blood or tissue biomarkers and these were then subdivided depending on the category of marker being examined: (1) DNA biomarkers, (2) RNA biomarkers, (3) Protein biomarkers or (4) Other. Our review reported on the sensitivity and specificity of each biomarker, alongside their 95% confidence interval ranges. These values were used in conjunction with disease prevalence to obtain positive and negative predictive values.

Results The search strategy identified 3348 abstracts. 44 papers, describing a total of 9908 participants and examining 67 different tumour markers were included in this review for data extraction and analysis. Overall sensitivities for colorectal cancer detection by faecal DNA markers ranged from 53% to 87% with varying specificities, however, all above 76%. Combining DNA markers increased the sensitivity of colorectal cancer detection to 86%. A 6-gene faecal DNA panel obtained a sensitivity of 68% for adenoma detection with a high specificity of 90%. Canine scent detection of volatile organic compounds had a sensitivity of detecting colorectal cancer of 99% and specificity of 97% on a study of nearly 300 patients. A panel of serum DNA and/or RNA biomarkers provide a sensitivity and specificity above 85% for all stages of colorectal cancer. A serum 4-gene DNA panel of markers has an increased specificity of 91% for adenoma detection.

Conclusion This review has demonstrated that there are several evolving faecal and serum biomarkers that can predict colorectal cancer. When combined into biomarker panels, higher sensitivity and specificities for early detection of colorectal cancer and adenomas are achieved. Further research is required to validate these markers in a well-structured population based study.

Disclosure of Interest None Declared.

PWE-016 PELVIC RADIATION DISEASE – A COMPARISON OF REPORTED SYMPTOMS IN ONCOLOGY AND GASTROENTEROLOGY CLINICS

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Introduction Pelvic radiation disease and consequences of cancer treatment are common. Improved cancer survivorship has increased awareness of these problems but it remains under diagnosed, under investigated and under recognised by physicians. Gastrointestinal side effects are common post pelvic radiotherapy and can have significant impact on a patients quality of life. PRD ranges in severity, from mild self limiting disease through to significant and debilitating symptoms with high morbidity. We assessed the late GI side effect symptoms reported to doctors at oncology clinics and compared them to the symptoms reported to doctors at GI clinic (where the most severe cases are investigated) at our centre.

Methods Patients (n = 295) referred to Velindre NHS Trust with gynaecological, colorectal or urological malignancy between 1st Jan and 30th June 2008 were identified through a pelvic radiotherapy database. Patients who had received radiotherapy and/or brachytherapy as radical or adjuvant treatment were included. Patients treated initially with palliative intent and patients treated for recurrent disease were excluded.

Patients referred to GI clinic at University Hospital Llandough or the via direct access endoscopy service with suspected PRD are entered on a local database. We identified all patients referred prior to 2013 (n = 34).

In both groups we recorded the presenting GI symptoms and the original malignancy and treatment plan.

Results 30.8% of patients seen in oncology clinic experienced late GI side effects post pelvic radiotherapy. Only a small proportion of these were referred to clinic. Of those referred, rectal bleeding and diarrhoea were the predominant symptoms, along with abdominal pain and bloating. Several patients had multiple symptoms.

Conclusion Late GI side effects of pelvic radiotherapy are common, but the number seen in GI clinic are small. PRD varies in severity, but is under referred by oncologists and primary care practitioners, is poorly recognised by Gastroenterologists and often under investigated. Treatment for consequences of cancer therapy exists, and with increased cancer survivorship, focus should be on minimising symptoms, allowing patients to live after cancer, and not merely survive.

Disclosure of Interest None Declared.

Abstract PWE-016 Table 1

Symptom	Rate in oncology clinic (%)	Rate in gastroenterology clinic (%)
Rectal bleeding	8.4	41.1
Abdominal pain and bloating	5.1	26.4
Constipation	4.7	5.8
Diarrhoea	11.9	35.2
Tenesmus	2.4	2.9
Faecal incontinence	3.1	5.8
Nocturnal urgency	0.7	2.9
Urgency	2.3	11.7

PWE-017 SHORT TERM OUTCOMES FOLLOWING THE USE OF SELF EXPANDING METALLIC STENTS IN ACUTE MALIGNANT COLONIC OBSTRUCTION

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Introduction Colonic self-expanding metallic stents (SEMS) may provide prompt relief of acute malignant colorectal obstruction