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