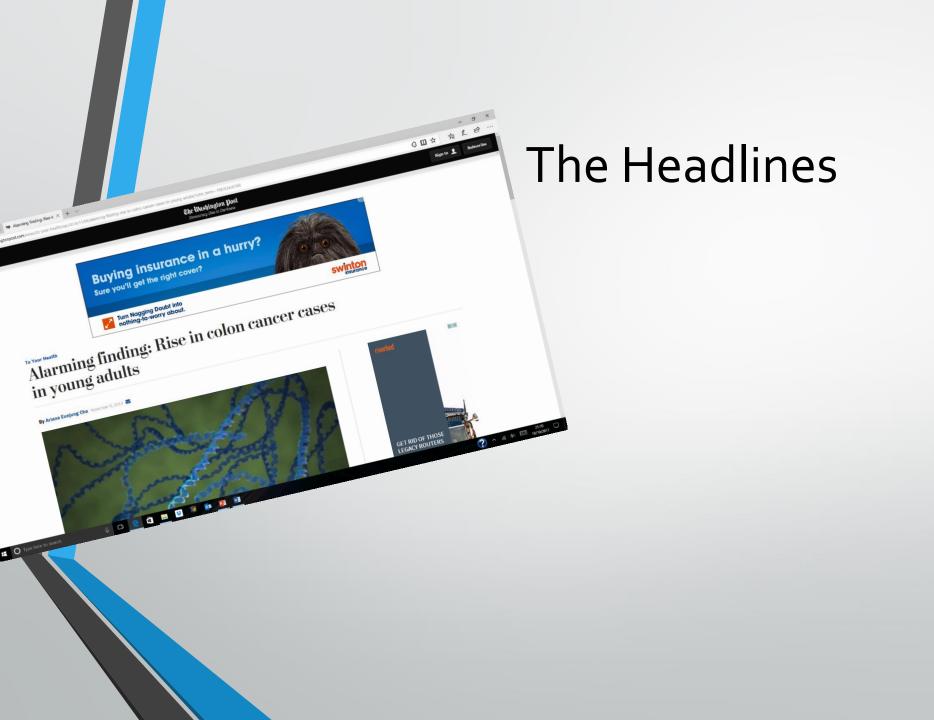
You don't need a colonoscopy or do you?

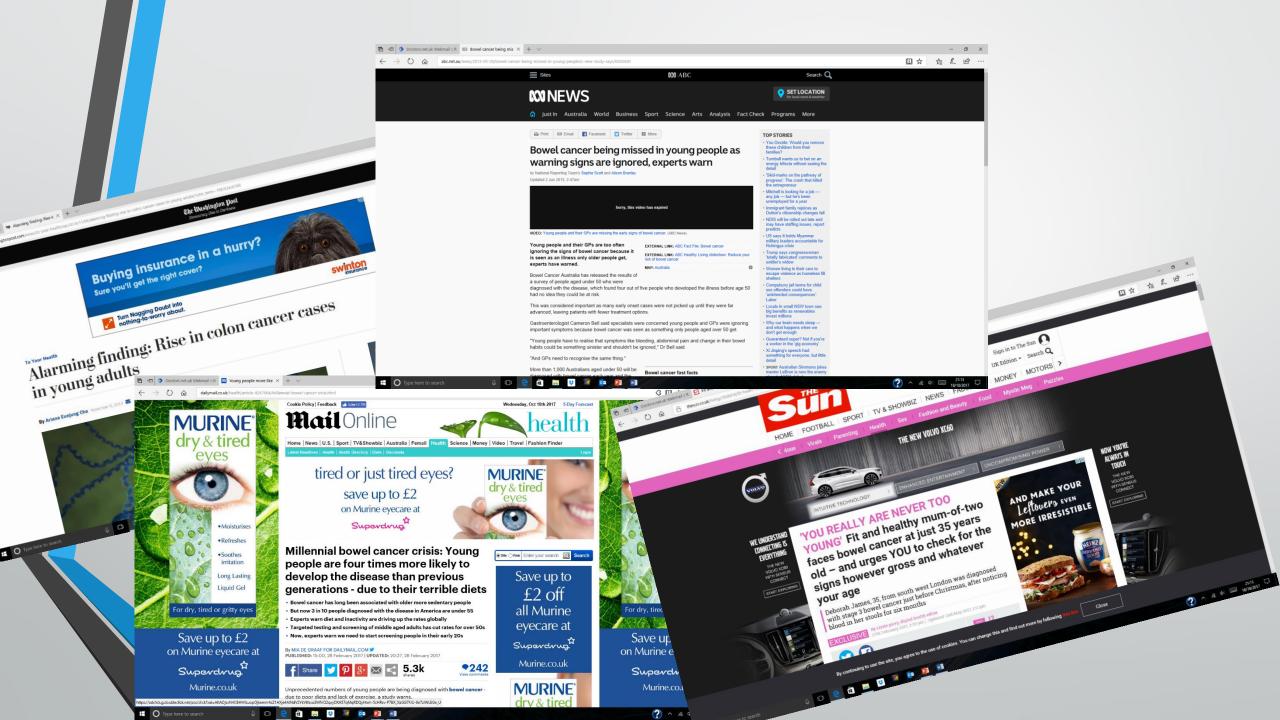
General & Colorectal Updates – October 2017

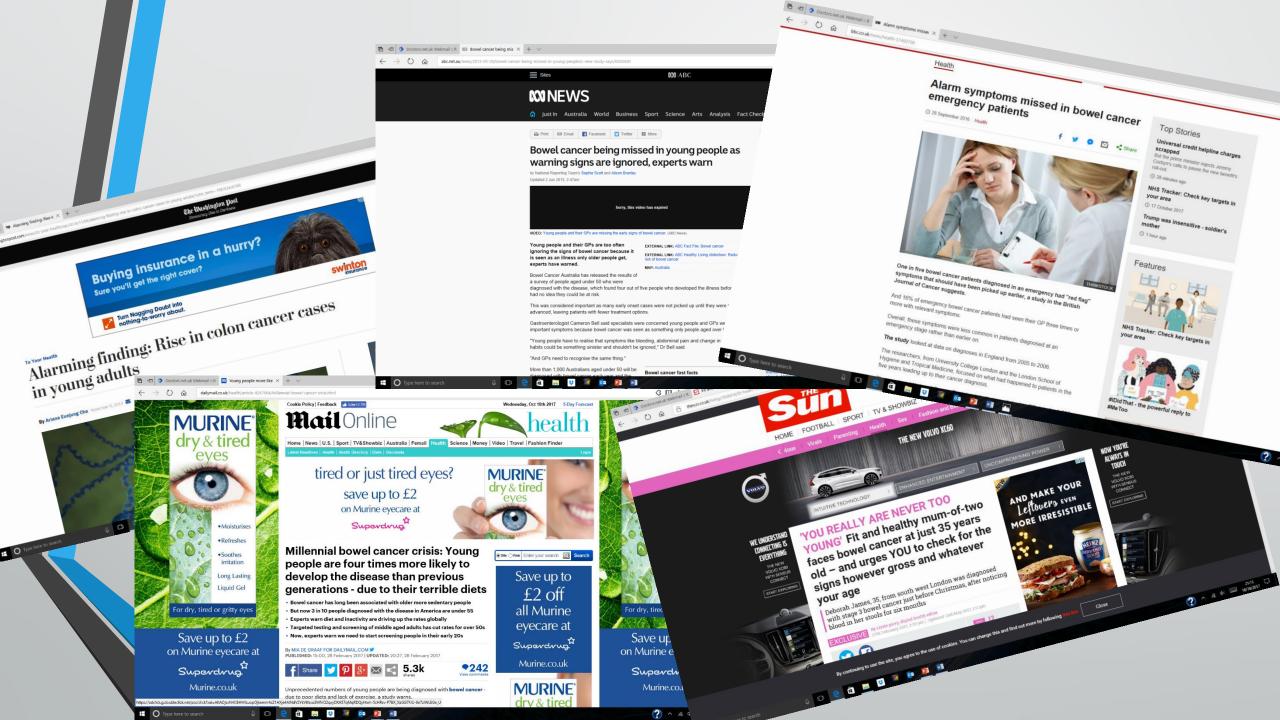
Denzil May
Consultant General & Colorectal Surgeon
Duchy Hospital & RCHT.

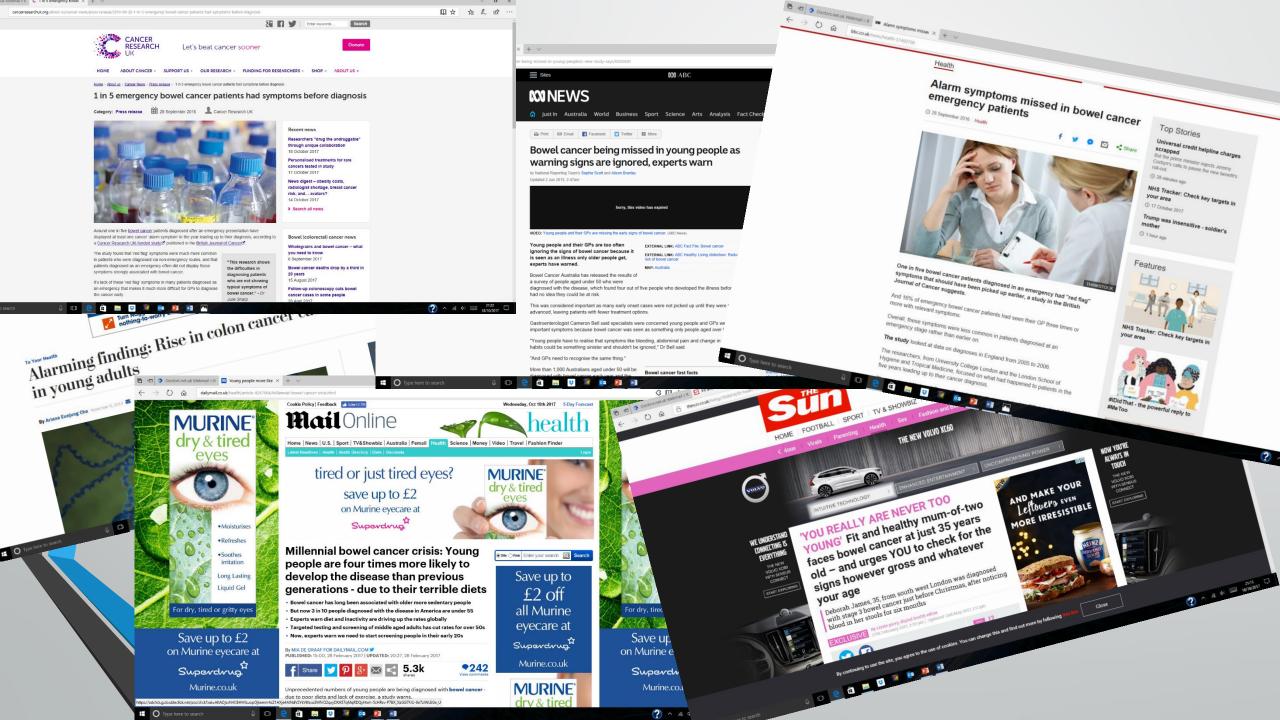












Aims for today

- What are the alarm symptoms?
 - Cancer vs colitis vs self limiting benign disease.
- Indications for referral
- Indications for colonoscopy?
- Listen to a patient and her journey
 - Review the evidence with reference to her story

Background

- Colorectal symptoms are common (1 in 12 GP consultations)
- Young patients (<50 years); other diagnoses considered first
- Average no. appointments before referral; 5
- Average time to diagnosis; 9 months
- Sex divide; females longer to diagnosis than males.

Colorectal Symptoms

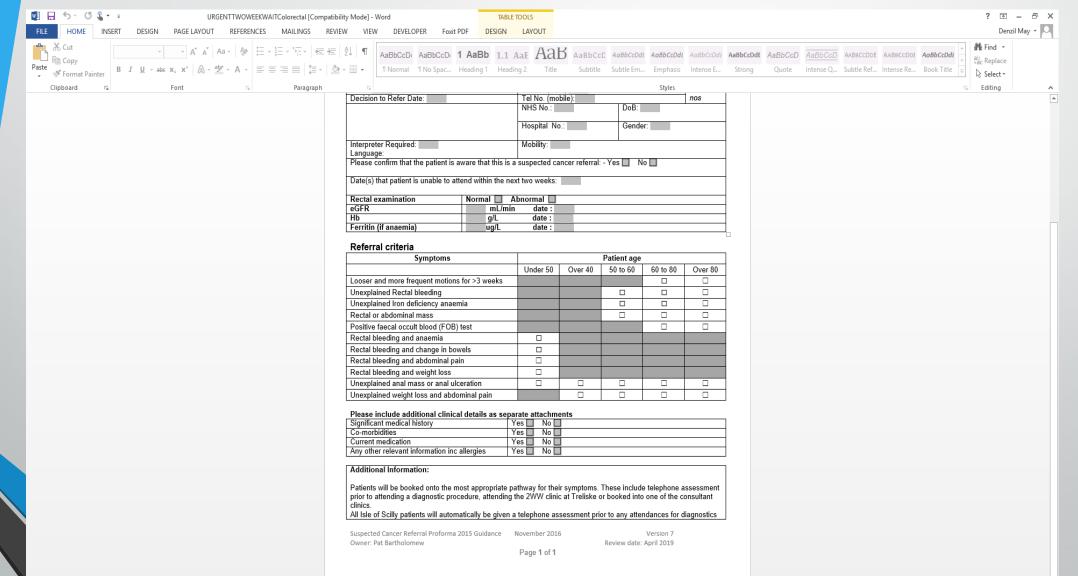
- Rectal bleeding
- Change in bowel habit
- Rectal mucous
- Tenesmus
- Anaemia (iron deficient)

- Abdominal pain
- Anal pain / anal discomfort
- Weight loss
- Family history
- Anal pain

Suspected Colorectal Cancer Referral Criteria

Referral criteria 40 - 60 yrs old with persistent (> 6 weeks) rectal bleeding and a change to looser / more frequent stools 60 yrs or over with persistent (> 6 weeks) rectal bleeding (in absence of anal symptoms) and / or change to looser / more frequent stools Definite intraluminal (not pelvic) mass on rectal examination irrespective of age Definite palpable right sided abdominal mass (probably involving large bowel) irrespective of age Other Unexplained iron deficiency anaemia (Hb =< 11q/dl in men and =< 10q/dl in non menstruating women)

Suspected colorectal cancer referral April 2017



IBD vs Cancer

- Both share similar symptoms
 - Probably best to consider the diagnoses together & investigate early
- Crohn's typically present at ages 33 to 45 years
- UC typically 5-10 years later than Crohn's
- Cancer much more common >60, but over 2500 cases per year in UK in <50</p>
- Delayed diagnosis common

Patient's Story







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Research

Clinical features of bowel disease in patients aged <50 years in primary care: a large case-control study

Sally A Stapley, Greg P Rubin, Deborah Alsina, Elizabeth A Shephard, Matthew D Rutter and William T Hamilton Br J Gen Pract 27 March 2017; bjgp17X690425. DOI: https://doi.org/10.3399/bjgp17X690425

Article	Figures & Data	Info	eLetters	□ PDF
Abstract				
Backgrou	nd Incidences of colorect	al cancer (C	RC) and inflammatory bov	vel disease (IBD) are
increasing	in those aged <50 years.			
Aim To ide	entify and quantify clinical	features in	orimary care of CRC/IBD ii	n those aged <50 years.
This study	considered the two condi	tions togeth	er and aimed to determine	which younger patients,
presenting	in primary care with sym	ptoms, woul	d benefit from investigation	n for potentially serious
colorectal	disease.			

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Their methods

- Case control study
- 700 practices included
- Cases of IBD / CRC vs case controls January 2000 to December 2013
- Features (symptoms, signs, investigations) recorded
- Power calculation done for sample size
- 12,000 cases, vs 36,000 controls

PPVs (95% CI) for colorectal cancer (CRC) or inflammatory bowel disease (IBD) in males and females aged 18–49 years for individual risk markers and for pairs of risk markers in combination.

Rectal bleeding	Change in bowel habit	Diarrhoea	Abdominal pain	Low mean red cell volume	Raised white cell count	Raised platelets	Abnormal liver function	Low haemoglobin	Raised inflammatory markers	
1.2 (1.1 to 1.4)	1.0 (0.8 to 1.3)	0.5 (0.5 to 0.6)	0.2 (0.2 to 0.2)	0.4 (0.3 to 0.4)	0.3 (0.3 to 0.3)	0.8 (0.7 to 0.9)	0.1 (0.1 to 0.1)	0.3 (0.3 to 0.3)	0.5 (0.5 to 0.6)	PPV as a single symptom
2.4 (1.9 to 3.2)	2.0 (0.9 to 4.4)	3.7 (2.2 to 6.3)	1.5 (1.1 to 2.2)	3.2 (1.3 to 7.4)	2.7 (1.3 to 5.3)	5,3 (-)	1.7 (1.0 to 2.7)	3.3 (1.7 to 6.2)	5.2 (2.9 to 9.1)	Rectal bleeding
	3.3 (1.6 to 6.9)	1.4 (0.8 to 2.5)	1.0 (0.6 to 1.6)	5.5 [-]	2.1 (-)	3.1 (-1	1.0 (0.5 to 1.9)	9.6 (-)	2.1 (1.1 to 3.9)	Change in bowel habit
		1.5 (1.2 to 1.9)	0.9 (0.7 to 1.1)	2.1 (1.3 to 3.5)	2.8 (1.9 to 4.2)	6.9 (3.7 to 13)	1.1 (0.8 to 1.5)	2.1 (1.5 to 3.1)	2.8 (2.0 to 3.7)	Diarrhoea
			0.4 (0.4 to 0.5)	1.0 (0.7 to 1.4)	0.7 (0.6 to 0.9)	2.7 (1.8 to 4.0)	0.3 (0.3 to 0.4)	0.8 (0.6 to 1.0)	1.2 (1.0 to 1.5)	Abdominal pain
					0.9 (0.7 to 1.3)	1.3 (1.0 to 1.8)	0.4 (0.3 to 0.6)	0.6 (0.5 to 0.7)	1.7 [1.2 to 2.3]	Low mean red cell volume
						1.3 (1.0 to 1.7)	0.4 (0.3 to 0.5)	0.5 (0.4 to 0.6)	1.0 (0.8 to 1.2)	Raised white cell count
							1.0 (0.7 to 1.4)	1.2 (0.9 to 1.5)	2.0 (1.5 to 2.6)	Raised platelets
0.5 (0.4 to 0.6)									0.5 (0.4 to 0.6)	Abnormal liver function
									1.4 (1.1 to 1.7)	Low haemoglobin

Sally A Stapley et al. Br J Gen Pract doi:10.3399/bjgp17X690425



PPVs (95% CI) for colorectal cancer (CRC) in males and females aged 18–49 years for individual risk markers and for pairs of risk markers in combination.

Rectal bleeding	Rectal mass	Change in bowel habit	Constipation	Diarrhoea	Abdominal pain	Nausea and/or vomiting	Low haemoglobin	Raised inflammatory markers	Low mean red cell volume	
0.4 (0.3 to 0.6)	0.6 (0.3 to 1.1)	0.5 (0.2 to 1.0)	0.1 (0.1 to 0.2)	0.1 (0.1 to 0.1)	0.1 (0.1 to 0.1)	0.1 (0.1 to 0.1)	0.1 (0.1 to 0.1)	0.1 (0.1 to 0.1)	0.1 (0.1 to 0.2)	PPV as a single symptom
1.8 (-)	17 [-]	0.3 (-)	5.8 (-)	0.4 [-]	0.4 (-)	1.3 [-]	13 [-]	1.4 (-)	8.0 [-]	Rectal bleeding
	5.6 (-)	6.3 [-]	6.1 (-)	5.1 (-)	7.0 [-]	1.3 (-)	5.6 (-)	7.0 [-]	2.9 (-)	Rectal mass
		1.2 (-)	0.3 (-)	6.1 [-]	0.3 (-)	0.3 (-)	5.1 (-)	0.4 (-)	2.1 [-]	Change in bowel habit
			0.3 (0.1 to 0.7)	1.8 (-)	0.3 (0.1 to 0.6)	0.5 (-)	0.4 (-)	1.0 (-)	5.1 (-)	Constipation
				0.1 (0.1 to 0.2)	0.2 (0.1 to 0.3)	0.1 (-)	0.4 [-]	0.3 (0.1 to 0.6)	0.7 (-)	Diarrhoea
					0.2 (0.1 to 0.3)	0.1 (0.1 to 0.3)	0.5 (0.3 to 1.2)	0.3 (0.2 to 0.6)	0.7 (-)	Abdominal pain
	0.1 0.3 0.2 (-) (-)									
	0.4 {0.2 to 0.6}									

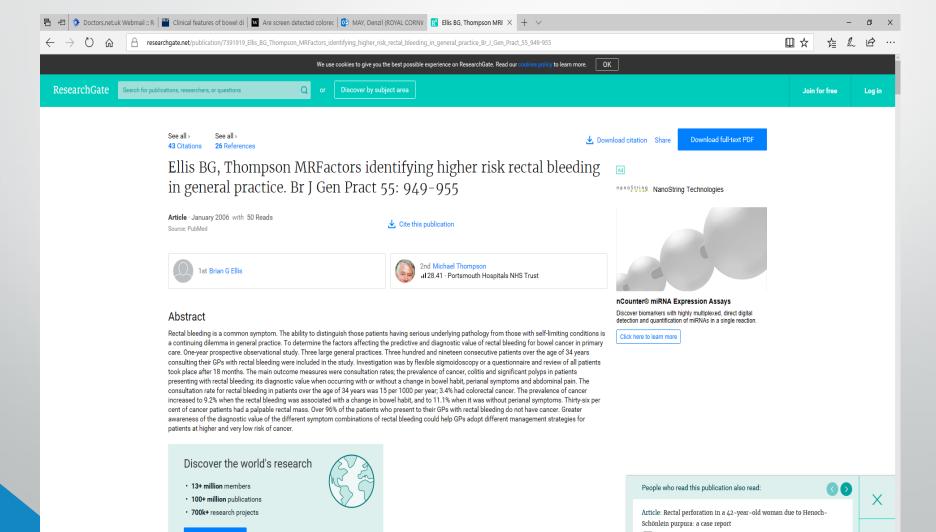
Sally A Stapley et al. Br J Gen Pract doi:10.3399/bjgp17X690425

PPVs (95% CI) for inflammatory bowel disease (IBD) in males and females aged 18–49 years for individual risk markers and for pairs of risk markers in combination.

Rectal bleeding	Change in bowel habit	Diarrhoea	Abdominal pain	Low mean red cell volume	Raised white cell count	Raised platelets	Abnormal liver function	Low haemoglobin	Raised inflammatory markers	
0.8 (0.7 to 1.0)	0.7 (0.5 to 0.9)	0.4 (0.4 to 0.4)	0.1 (0.1 to 0.2)	0.2 (0.2 to 0.3)	0.2 (0.2 to 0.2)	0.6 (0.5 to 0.7)	0.1 (0.1 to 0.1)	0.2 (0.2 to 0.2)	0.4 (0.3 to 0.4)	PPV as a single symptom
1.5 (1.1 to 2.0)	1.7 [-]	2.9 [1.6 to 5.1]	1.1 (0.7 to 1.7)	1.8 (0.7 to 4.3)	1.7 (0.8 to 3.4)	3.3 (-)	1.2 (0.7 to 2.0)	1.9 (1.0 to 3.6)	3.6 (2.0 to 6.6)	Rectal bleeding
		0.9 (0.5 to 1.5)	0.6 (0.4 to 1.1)	3.3 [-]	1.2 [-]	1.8 (-)	0.6 (0.3 to 1.3)	5.6 [-]	1.6 (0.8 to 3.2)	Change in bowel habit
		1.2 (1.0 to 1.5)	0.7 (0.6 to 0.9)	1.5 (0.9 to 2.5)	2.2 [1.4 to 3.4]	5.2 (2.6 to 10)	0.8 (0.6 to 1.1)	1.5 (1.0 to 2.3)	2.3 [1.6 to 3.1]	Diarrhoea
			0.3 (0.2 to 0.3)	0.7 (0.5 to 1.1)	0.6 (0.4 to 0.7)	1.9 [1.2 to 2.9]	0.2 (0.2 to 0.3)	0.5 (0.4 to 0.7)	0.9 (0.7 to 1.2)	Abdominal pain
					0.6 (0.4 to 0.9)	1.0 (0.7 to 1.5)	0.3 (0.2 to 0.4)	0.4 (0.3 to 0.4)	1.1 (0.8 to 1.6)	Low mean red cell volume
						1.0 (0.7 to 1.3)	0.3 (0.2 to 0.4)	0.3 (0.3 to 0.4)	0.8 (0.6 to 0.9)	Raised white cell count
0.8 (0.6 to 1.2) (0.7 to 1.3)									1.7 [1.2 to 2.3]	Raised platelets
0.3 (0.2 to 0.4)										Abnormal liver function
										Low haemoglobin

Sally A Stapley et al. Br J Gen Pract doi:10.3399/bjgp17X690425

Other evidence in the literature



Other evidence in the literature



Table 1. The diagnostic value of symptom combinations and the characteristics of rectal bleeding for colorectal cancer in primary care.

		Predictive	Likelihood		
Symptoms	Numbers	value	ratio (95% CI)	Sensitivity	Specificity
Bleeding and CIBH	11/119	9.2	2.361 (2.046 to 2.725)	100	55
Bleeding and no CIBH	0/147	0			
Bleeding and CIBH (loose +/- frequent)	10/83	12.1	1.345° (1.071 to 1.689)	91	32
Bleeding and CIBH (hard +/- infrequent	1/36	2.8			
Bleeding and no perianal symptoms	7/63	11.1	2.898 (1.752 to 4.792)	64	78
Bleeding and perianal symptoms	4/203	1.97			
Bleeding, CIBH and abdominal pain	6/67	9	0.966° (0.549 to 1.697)	55	44
Bleeding, CIBH and no abdominal pain	5/52	9.6			
Dark blood	3/31	9.7	2.133 (0.765 to 5.946)	27	87
Bright blood	8/199	4			
Aged ≥60 years	8/155	5.2	1.524 (1.042 to 2.229)	73	52
Aged ≤59	3/164	1.8			
Blood on paper only	2/82	2.4	0.580 (0.163 to 2.057)	18	69
Blood in pan and on paper	9/184	4.9			
Large volume of blood	1/79	1.3	0.297 (0.045 to 1.944)	9	69
Small volume of blood	10/187	5.3			
First time rectal bleeding	5/106	4.7	1.148 (0.590 to 2.231)	45	60
Not first time bleeding	6/160	3.8			
Blood mixed with the stool	1/33	3	0.724 (0.109 to 4.827)	9	87
Blood not mixed with the stool	10/233	4.3			

Total cancers in study: 11/319 = 3.4%. Diagnostic yield for cancer in patients sigmoidoscoped: 11/219 = 5%. Pre-test probability or positive predictive value of rectal bleeding in cancer for patients answering questionnaire or sigmoidoscoped: 11/266, 4.1% [95% CI = 2.1 to 7.3]). *Likelihood ratio derived using only patients with rectal bleeding and a change in bowel habit using pre-test probability of 9.2%. CIBH = change in bowel habit.

Table 2. The diagnostic value of symptom combinations and the characteristics of proctocolitis in primary care.

		Predictive	Likelihood		
Symptoms	Numbers	value	ratio (95% CI)	Sensitivity	Specificity
Bleeding and CIBH	5/119	4.2	1.901 (1.295 to 2.789)	83	56
Bleeding and no CIBH	1/147	0.7			
Bleeding and CIBH (loose +/- frequent)	5/83	6.0	1.207 (0.827 to 1.763)	83	31
Bleeding and CIBH (hard +/- infrequent) 1/36	2.8			
Bleeding and no perianal symptoms	6/63	9.5	4.561 (3.626 to 5.737)	100	76.3
Bleeding and perianal symptoms	0/203	0			
Bleeding, CIBH and abdominal pain	1/67	1.5	0.355 (0.061 to 2.061)	20	42
Bleeding, CIBH and no abdominal pain	4/52	7.7			
Dark blood	1/31	3.2	1.5 (0.252 to 8.934)	20	86
Bright blood	4/199	2			

Total proctocolitis in study: 6/319, 1.9%. Diagnostic yield for proctocolitis in patients sigmoidoscoped: 16/219, 2.7% [95% CI = 1.1 to 6.1]). CIBH = change in bowel habit.

British Journal of General Practice, December 2005

ectal bleeding could help GPs adopt different management strategies for

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Summary of the literature

- Younger patients with GI symptoms difficult diagnostic problem
- Most will have functional disorder or non serious disease
- Faecal calprotectin (level >50μg/g) sensitive & specific for IBD 93 & 94% against IBS.
- Faecal calprotectin no help in CRC vs IBS
- NICE CG61
 - Risk >3% should have colonoscopy
 - Risk 1-3% IBD can be excluded by normal faecal calprotecting
 - Risk <1% managed expectantly
 - Patient progress monitored and referred if not as expected

Other Indications for a colonoscopy (asymptomatic patients)

- Surveillance
 - Polyps
 - Post cancer resection
 - Colitis
- Family history
- Screening (Bowel Scope & National Bowel Cancer Screening Programme)
- Following acute appendicitis in age >50
- Following first presentation diverticulitis (flexible sigmoidoscopy)

Surveillance

- Polyps
 - As per BSG guidelines
 - Low Risk 5 years
 - Intermediate risk 3 years
 - High Risk 1 year
- Post cancer resection
 - Colonoscopy at 1 year post resection
 - Colonoscopy at 3 years post resection
 - Then polyp guidelines

- Colitis
 - High risk annual
 - PSC
 - Stricture or dysplasia last 5 years
 - Extensive colitis with severe inflammation
 - First degree relative with CRC <50 years
 - Intermediate risk 2-3 yearly
 - Extensive colitis, with mild to moderate inflammation
 - Inflammatory polyps
 - First degree relative with CRC > 50 years
 - Low risk 5 yearly

Family History

- Low Risk Group
 - No personal history CRC
 - One first degree relative with CRC >45 years
- Moderate Risk Group
 - One first degree relative with CRC <45 years
 - Two first degree relatives with CRC at any age (except if meet criteria for high risk)

- High Risk Group
 - HNPCC / Lynch syndrome
 - FAP
 - POLE syndrome

Discussion / Questions?

Summary indications for GI investigation

- Combination symptoms with >3% risk warrant urgent referral
- Hard symptoms Consider referral for specialist opinion
 - Bloods for WCC, CRP, platelets, LFTs, haematinics.
- Soft symptoms Referral if doesn't settle as expected
 - Bloods for WCC, CRP, platelets, LFTs, haematinics
 - Except personal or family history of IBD or CRC refer.
- Family History
 - Moderate or high risk specialist opinion