APPENDIX C: CHARACTERISTICS OF INCLUDED STUDIES

C1: DIAGNOSIS

A) DIAGNOSTICS

Study	*Sensitivity (Se) and Specificity (Sp)*	*Predictive value (PPV)*
	KRUIS CRITERIA	
Kruis 1984 N=108	Se = 83% Sp = 97% Accuracy if score > 44 is 99%	Based on IBS prevalence if score is > 44 10% 87.1% 30% 96.4% 50% 98.4%
Dogan & Unal 1996a Turkey N=347	Se = 81% Sp = 91% if score of 44 points was positive	90%
Frigerio 1992 Italy N=1257	Se= 47% men, 60% women Sp= 94% men, 95% women	54% men, 82% women Negative Predictive value 91.6% men, 87.3% women
Osset 1991 Italy Quoting from Kruis 1984	Se= 83% Sp= 97% 99% accurate if score is > 44 points	
Dogan 1996b Turkey Manning discriminated IBS from OGD N=347	Se= 90% Sp= 87% if > 3 positive	87%
Rao 1993 N=123	Se=67% Sp=93%	93.4%

Talley 1990 N=361	Se= 42% Sp= 85%	

Study	*Sensitivity (Se) and Specificity (Sp)*	*Predictive value (PPV)*
	MANNING AND KRUIS CRITERIA	
Dogan 1996c Turkey: Correlation significant in IBS r=0.714 p=<0.05 but not in OGD r = 0.190 p=>0.05 N=347	Se= 80% Sp= 97%	96%
	MANNING (3/6) CRITERIA	
Jeong 1990 N=172	Se= 67% Sp= 70%	
Smith 1992 Manning ≥ ¾ N=109	Se= 63% Sp= 85%	
	MANNING (>3/6) CRITERIA	
Talley 1990 N = 361	Se= 84% Sp= 76%	

Kruis 1984 N=479	Se= 64% Sp= 99%	94%

Study	*Sensitivity (Se) and Specificity (Sp)*	*Predictive value (PPV)*
	ROME CRITERIA	
Saito 2003a, USA Prevalence Cohort study 1st survey 1987N=1121 2nd survey 1989 3rd survey 1992 N=892 response N=643 (72%)	Prevalence rates by criteria: Rome (1989) 27.6 per 100 (95%CI:23.6-31.5) Rome (1990) 5.1 per 100 (95%CI:3.2-7.1)	
Vanner 1999 N=384 (retrospective) N=95	Se= 63% Sp= 100%	98%
	ROME I CRITERIA	
Saito et al 2003b, USA N= 1014 women	Rome I (1992) 6.8 per100 (95%CI 4.7-8.9) Se=83% Sp= not given	Good agreement between Rome I & II (>95% Kappa >0.68)

Chey 2002a USA Mearin 2001a Spain Patients diagnosed with Manning, Rome I & Rome II > 2/3 of subjects fulfilling Manning or Rome I would not be diagnosed as having IBS if using Rome II N=281	Se/Sp = not given

Study	*Sensitivity (Se) and Specificity (Sp)*	*Predictive value (PPV)*
	ROME II CRITERIA	
Saito 2003c USA	Rome II (1999) 5.1 per 100 (95% CI:3.1-7.0)	Rome II & Rome (79% kappa 0.29) Rome II more restrictive. Results similar for other studies Mearin *et al*, Thompson *et al* Chey *et al*
Chey 2002b USA Difference in sensitivity seemed to be attributable to more restrictive time requirement for pain with Rome II N=1014 women	Se= 47% Sp=not given	If different thresholds are used subjects identified are not the same. Manning identified less severe symptoms. Treatment would be no different using any criteria
Boyce 2000 Australia (prevalence study) N=2910	See Table 2 in paper	

BDQ CRITERIA (Talley et al) - VALIDATED QUESTIONNAIRE FOR IDENTIFYING IBS

Bijkerk 2003 Netherlands N= 99	All patients had diagnosis of IBS but only18% (n=14) met Rome II GP diagnosis based on Bloating (87%) and absence of alarm features (87%) rather than diagnostic criteria. GP diagnosis correlated most closely with Manning. GP's reported tests to exclude organic disease in pts over 50

B) COLONIC EVALUATION

Study	*Population tested*	*Tests used*	*Gold standard*	*Abnormal tests*	*Alternative diagnosis*
Hamm 1999	Rome criteria met for at least 6 months, & no colonic endoscopic exam in previous 2 years. i.e. not all recent diagnosis	Age < 50: Flexible sigmoidoscopy Age > 50: Colonoscopy or flexible sigmoidoscopy plus barium enema	None	7/306 (2%) 1146 patients not tested	3 IBD 1 colonic obstruction 3 colonic polyps without malignancy
Tolliver 1994	International Congress of Gastroenterology Symptom Criteria for IBS. Referred to secondary care without prior diagnosis	Air contrast barium enema, flexible sigmoidoscopy and / or colonoscopy.	None	43 abnormalities in 23 patients (all 196 tested)	2 which could be the cause of IBS symptoms 1 IBD 1 cancer
MacIntosh 1992	IBS patients referred to secondary care, (89% fulfilled Manning 3 or more and 84% fulfilled Rome criteria)	Sigmoidoscopy, colonoscopy, phosphate enema, rectal biopsy	None	0/89 (all patients tested)	None
Francis 1996	Patients evaluated within 6 months of diagnosis, met Rome criteria and normal stool exam, haematological and biochemical indices including ESR	Sigmoidoscopy in all, plus barium enema or colonoscopy in over 45 year olds	None	0/125 (all patients tested)	None except diverticular disease

C) LACTOSE INTOLERANCE

Study	*Population tested*	*Tests used*	*Gold standard*	*Abnormal tests*	*Alternative diagnosis*
Hamm 1999	Rome criteria met for at least 6 months. Not all recent diagnosis	Hydrogen breath test	None – ideally should report response to lactose restricted diet	23% of 1122 patients 330 not tested	Unconfirmed lactose intolerance as no response to treatment recorded
Tolliver 1994	International Congress of Gastroenterology Symptom Criteria for IBS. Referred to secondary care without prior diagnosis	Hydrogen breath test	3 year follow-up to assess symptoms	48/186 (10 not tested, doesn't state why)	Possible lactose malabsorption but no difference in symptoms at 3 years compared to those without diagnosis

D) THYROID FUNCTION

Study	*Population tested*	*Tests used*	*Gold standard*	*Abnormal tests*	*Alternative diagnosis*
Hamm 1999	Rome criteria met for at least 6 months and without test in previous 12 months. Not all recent diagnosis	TSH and thyroxine	None – ideally should report resolution of symptoms following treatment	67/1209 (6%) 3% hypo and 3% hyper	Hypo or hyperthyroidism
Tolliver 1994	International Congress of Gastroenterology Symptom Criteria for IBS. Referred to secondary care without prior diagnosis	T3 T4 TSH	None – ideally should report resolution of symptoms following treatment	1/171, author states this provided no useful clinical information 25 not tested	Not clear

E) STOOL TESTS

Study	*Population tested*	*Tests used*	*Gold standard*	*Abnormal tests*	*Alternative diagnosis*
Hamm 1999	Rome criteria met for at least 6 months and without test in previous 3 months. Not all recent diagnosis	Faecal ova and parasite test	None – ideally should report resolution of symptoms following treatment	19/1154 (2%) 298 not tested	Enteric infection of unconfirmed clinical significance
Tolliver 1994	International Congress of Gastroenterology Symptom Criteria for IBS. Referred to secondary care without prior diagnosis	Occult blood and parasites	Occult blood - structural evaluation Parasites – none, should report resolution of symptoms following treatment	Occult blood 15/183 (13 not tested) Parasites 0 /170 (26 not tested)	1 Hemorrhoids, 2 annal fissures, 1 melanosis coli

F) OTHER LABORATORY TESTS

Study	*Population tested*	*Tests used*	*Gold standard*	*Abnormal tests*	*Alternative diagnosis*
Tolliver 1994	International Congress of Gastroenterology Symptom Criteria for IBS. Referred to secondary care without prior diagnosis	FBC, HgB, ESR, Chemistry panel, urine analysis	None	FBC& HgB; 0/196 Chemistry: 2/196 Urine: 4/157 (39 not tested)	No useful clinical information
Sanders 2001	Rome II without “sinister symptoms” of weight loss, rectal bleeding, nocturnal diarrhoea or anaemia	FBC, ESR, blood urea nitrogen, serum electrolyte concentration, thyroid function, CRP, blood		CRP: 2/300 ESR: 1/300 Liver function: 2/300	3 IBD (abnormal CRP / ESR) 2 excess alcohol (IBS symptom response to reduced intake not reported)

	(Secondary care)	glucose.		Anaemia: 1/300 All patients tested	Anaemia was secondary to coeliac disease

G) COELIAC SCREENING

Study	*Population tested*	*Tests used*	*Gold standard*	*Abnormal tests*	*Alternative diagnosis*
Sanders 2001	Rome II without "sinister symptoms" of weight loss, rectal bleeding, nocturnal diarrhoea or anaemia (Secondary care)	IgA and IgG antiglandin, endomysial antibody	Duodenal biopsy	66/300 All patients tested	14 coeliac disease confirmed by biopsy, 1 positive serology but refused biopsy Response to diet not reported
Sanders 2003	Primary care cross-sectional study, IBS diagnosis from Rom II (subgroup of whole cross-sectional cohort)	IgG/IgA antiglandin and EMA	Small bowel biopsy, and follow-up after diet	Positive tests not reported for IBS subgroup All patients tested	4/123 IBS patients had coeliac disease, all responded to diet

H) ULTRASOUND

Study	*Population tested*	*Tests used*	*Gold standard*	*Abnormal tests*	*Alternative diagnosis*
Francis 1996	Patients evaluated within 6 months of diagnosis, met Rome criteria and normal stool exam, haematological and biochemical indices including ESR	Ultrasound of abdomen and pelvis	None	22/125 (18%) All patients tested	No change to IBS diagnosis

I) BACTERIAL OVERGROWTH

Study	*Population tested*	*Tests used*	*Gold standard*	*Abnormal tests*	*Alternative diagnosis*
Pimentel 2000	Referred for lactulose hydrogen breath test Rome I criteria. Excluded if evidence of rapid transit	Hydrogen breath test	Reported symptom resolution and repeat test result but only in minority of treated patients	157 of 202 (78%)	Only 47 had repeat test to confirm response to therapy 25 achieved eradiation and 45% of these no longer met Rome criteria
Pimentel 2003	Community and IBS support group advertisement, Rome criteria	Hydrogen breath test	Reported symptom response and repeat test results	84% of 111 had positive first test	20% of those with positive test and antibiotic treatment achieved normal second test, symptom improvement associated with treatment and normal second test

C2: PHYSICAL ACTIVITY

Characteristics of the included studies of this review are detailed in the individual review.

C3: FIBRE

Study	*Participants*	*Interventions*
Aller 2004; Trial held in Spain; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: No spasmolytic agents were used by pts for 6 months prior to the study and during the trial. Patients with organic disease were excluded Type of IBS: Mixed; IBS definition: Rome II; Severity of IBS symptoms: Not stated; Bloating/flatus: Some people; Post infective: not stated Age (range): 46 yrs (SD12); Gender (M/F): 19:37; Comorbidities: None; Weight: assessed at 3 months Int 65.5kg SD12.1 Control: 66.6kg SD12.5 Smoking: Int:21% Control32%	1) Diet with 30.5 g fibre (4.11. Soluble, 25.08 insoluble; 13% soluble) (mixed fibre); duration: 12 weeks; frequency / day: daily; amount 30.5 g fibre per day (n= 28) 2) Diet with 10.4g fibre (1.97g soluble,8.13g insoluble; 19% soluble) (mixed fibre); duration: 12 weeks; frequency/day: daily; amount 10.4 g fibre per day (n=28)
Arthurs 1983; Trial held in Ireland; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: not stated Type of IBS: Unclear; IBS definition: Other; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: Not stated; Age (range): Mean 28 (15-50); Gender (M/F): 17: 61; Comorbidities: amount 2 sachets / day (n=38)	1) Ispagula poloxamer 188 (2 sachets) + 30g fibre containing diet daily (soluble fibre); duration: 4 weeks; frequency / day: 2; amount 30g/day (n=40) 2) Inert placebo +30g fibre containing diet daily (placebo); duration: 4 weeks; frequency/day: 2 times daily
Chapman 1990; Trial held in UK; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Exclusions: organic disease Type of IBS: Mixed; IBS definition: Manning; Severity of IBS symptoms: Not stated; Bloating / flatus: Not stated; Post infective: Not stated Age (range): 18-75; Gender (M/F): 25:78; Comorbidities: none; Duration of symptoms: median no. in months Int:20 Control:24	1) Mebeverine 135mg TID + 3.5g IspaghulaBD (soluble fibre); duration: 8 weeks; frequency/day: 3 times day; amount 7-10.5g ispaghula + 405mg Mebeverine daily (n= 54) 2) Mebeverine 405 mg + Dietary advice leaflet (mixed fibre); duration: 8 weeks; frequency/day: 3 times daily; amount 405mg mebeverine (n=49)

Study	*Participants*	*Interventions*
Cook 1990; Trial held in Canada; crossover; trial; Setting: secondary care	Inclusion & Exclusion criteria: Exclusion: previous dietary counselling, fibre supplementation, prior GI surgery, taking essential concurrent medication; Type of IBS: Constipation; IBS definition: Manning; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): 25.8(SD2.4)18-37 yrs; Gender (M/F): not stated; Comorbidities: none; IBS Symptom Questionnaire (scores 1-37); 4 week washout period	1) 20g fibre cookies daily (insoluble fibre); duration: 12 weeks; frequency/day: 2 cookies twice daily; amount 20g per day (n=14) 2) Identical cookies with no fibre (placebo); duration: 12 weeks; frequency/day: 2 cookies twice daily; amount :0g per day (n=14)
Dettmar 1999; Trial held in UK; parallel; trial; Setting: primary care	Inclusion & Exclusion criteria: IBS unchanged for 12 months; organic disease excluded; Type of IBS: Unclear; IBS definition: Symptoms described; Severity of IBS symptoms: mixed; Bloating/flatus: Not stated; Post infective: Not stated; Age (range): mean 34 yr (18-40yr); Gender (M/F): 32:78; Comorbidities: Not stated	1) Ispaghula husk 3.5g + mebeverine hydrochloride 135mg sachet (soluble fibre); duration: 4 weeks; frequency/day: twice daily; amount 7g fibre + 270mg mebeverine (n=56) 2) Mebeverine hydrochloride 135mg tablets + high fibre dietary advice (Mebeverine); duration: 4 weeks; frequency/day: three times daily; amount 405mg mebeverine (n=54)
Fielding 1984; Trial held in Ireland; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: not stated Type of IBS: Constipation; IBS definition: Authors' definition; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: n Not stated; Age (range): 28 (15-46yrs); Gender (M/F): 18:37; Comorbidities: none	1) 30g cereal fibre + 10g fruit fibre (mixed fibre); duration: 4 weeks; frequency/day: 40g fibre daily; amount 40g fibre daily (n=28) 2) 30g fruit & vegetable fibre +10g cereal fibre (mixed fibre); duration: 4 weeks; frequency/day: daily; amount 40g fibre daily (n= 27)

Study	*Participants*	*Interventions*
Fowlie 1992; Trial held in UK; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Exclusion: use of dietary fibre supplements, laxatives or constipation medication. Psychiatric disorders. Type of IBS: Unclear; IBS definition: Symptoms described; Severity of IBS symptoms: mixed; Bloating/flatus: Not stated; Post infective: not stated Age (range): 40 (18-65)yrs; Gender (M/F): 17:32; Comorbidities: none; 24hr recall of CHO,Fat protein & Fibre assessed by dietitian blind to symptom score	1) Fibre tablet-44%of its 624mg fibre + daily supplement of 4.1gm fibre (mixed fibre); duration: 12 weeks; frequency/day: 5 tablets TDS; amount 10g fibre/daily (n=25) 2) Placebo tablet-starch, calcium phosphate & lactose with 29mg fibre + daily supplement 0.4g fibre (placebo); duration: 3 months; frequency/day: once daily; amount 1gm fibre/daily (n= 24)
Kruis 1986; Trial held in Germany; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Exclusion: other medication Type of IBS: Mixed; IBS definition: Symptoms described; Severity of IBS symptoms: Not stated; Bloating/flatus: Some people; Post infective: not stated Age (range): 42 (19-71yrs); Gender (M/F): 47:73; Comorbidities: none; Weight, Length of time since diagnosis, duration of symptoms, ethnicity, socio-economic group	1) 3 times 5g daily commercially available wheatbran (insoluble fibre); duration: 16 weeks; frequency/day: 3 times day; amount 15mg/day (n=40)2) 4 times 100mg daily Placebo mebeverine (usual diet); duration: 16 weeks; frequency/day: three time daily; amount: 0mg daily (n= 40)3. 4 times daily Mebeverine Placebo(n=40)
Longstreth 1981; Trial held in USA; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Exclusion: other GI disease, pregnancy, liver or gallbladder disease, previous use of psyllium Type of IBS: Mixed; IBS definition: Symptoms described; Severity of IBS symptoms: mixed; bloating/flatus: Some people; Post infective: not stated Age (range): not given; Gender (M/F): not given; Comorbidities: none	1) 6.4g sachet of psyllium in water (soluble fibre); duration: 8weeks; frequency/day: 3 times daily; amount 19g/day (n=40) 2) Corn starch and polyvinylprrrolidone -inactive agent to replace psyllium (placebo); duration: 8 weeks; frequency/day: 3 times daily; amount 3 times daily (n= 37)

Study	*Participants*	*Interventions*
Lucey 1987; Trial held in UK; crossover; trial; Setting: secondary care	Inclusion & Exclusion criteria: None stated; Type of IBS: Mixed; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): 32 (22-78yrs); Gender (M/F): 9:19; Comorbidities: None; frequency/day: 12 biscuits/ day; amount : 2.76g fibre daily (n=28)	1) Normal diet + 12 bran biscuits containing 1.3g fibre each (insoluble fibre); duration: 12 weeks; frequency/day: 12 biscuits per day; amount 12.8g fibre daily (n=28) 2) Normal diet +12 placebo biscuits each with 0.23g fibre (placebo); duration: 12
Manning 1977; Trial held in UK; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Exclusion|: taking drugs known to modify bowel motility, organic disease Inclusion: normal barium studies, Type of IBS: Mixed; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; bloating/flatus: Not stated; Post infective: not stated Age (range): 20-60 yrs; Gender (M/F): 14:12; Comorbidities: none	1) Whole wheat bread +/or unprocessed wheat bran (insoluble fibre); duration: 6 weeks; frequency/day: 20g fibre daily; amount 20g wheat bran daily in divided doses (n=14) 2) Exclusion of all wholegrain cereals + only moderate intake of fruit & vegetables (no fibre); duration: 6 weeks; frequency/day: daily; amount not stated (n= 12)
Parisi 2002; Trial held in Italy; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Exclusions: Patients with systemic GI disease, psychiatric disease 10 days before commencing study asked to stop all medication. Type of IBS: Mixed; IBS definition: Rome I; Severity of IBS symptoms: mixed; Bloating/flatus: Not stated; Post infective: not stated Age (range): 40.3(+/-14.6); Gender (M/F): 49:139; Comorbidities: none; Patients could switch treatments after 4 weeks Separate Data available.	1) 30g wheat bran (insoluble fibre); duration: 4 weeks; frequency/day: daily; amount 30g/day (n=94) 2) PHGG partially hydrolized Guar Gum (soluble fibre); duration: 4 weeks; frequency/day: daily; amount 5g in 60 mls apple juice (n= 94)After 4 weeks patients could change groups if their symptoms were worse, groups further divided into fibre - phgg ans phgg-fibre groups.

Study	*Participants*	*Interventions*
Parisi 2005; Trial held in Italy; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Ex: systemic, GI & psychiatric disease. 10 days before joining study all medication stopped. Type of IBS: Mixed; IBS definition: Rome II; Severity of IBS symptoms: mixed; Bloating/flatus: Not stated; Post infective: not stated Age (range): 45(SD13.6); Gender (M/F): 22:64; Comorbidities: none; BMI measured at baseline	1) 10g partially hydrolyzedGuar Gum (soluble fibre); duration: 12 weeks; frequency/day: once daily; amount 10g/day (n=40) 2) 5g partially hydrolyzed Guar Gum (soluble fibre); duration: 12 weeks; frequency/day: once daily; amount 5g/day (n= 46)
Prior & Whorwell 1987; Trial held in UK; parallel; trial; Setting: Secondary care	Inclusion & Exclusion criteria: Exclusions: None stated Type of IBS: Mixed; IBS definition: Symptoms described; Severity of IBS symptoms: mixed; Bloating/flatus: All patients; Post infective: not stated Age (range): 18-63yrs; Gender (M/F): 8:72; Comorbidities: none	1) I sachet of 56% ispaguhla (soluble fibre); duration: 12 weeks; frequency/day: 1+ sachet 3 x daily; amount 11g per day (n=40) 2) 1 sachet 3x daily (placebo); duration: 12 weeks; frequency/day:3/day; amount 0g 3x daily (n=40)
Rees 2005; Trial held in UK; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Negative investigations, no other bowel disorder/ serious illness; stools<1/day or variable or 1-2/day and hard, pellety, variable or straining. Excl if pregnant/surgery in last 6 months, on diet or medication Type of IBS: Constipation; IBS definition: Rome I; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): 18-70yr; Gender (M/F): 3:24; Comorbidities: not stated	1) Coarse wheat bran (insoluble fibre); duration: 8-12 weeks; frequency/day: once; amount 10g x 4 weeks, increased if poss weeks 5-8 (n=14) 2) Placebo (placebo); duration: 8-12 weeks; frequency/day: once; amount - (n=14)

Study	*Participants*	*Interventions*
Ritchie 1979; Trial held in UK; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Investigations negative for organic disease Type of IBS: Unclear; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): mean 38 yr (16-69 yr); Gender (M/F): 22:74; Comorbidities: Not stated	1) Ispaghula (Fybogel) (soluble fibre); duration: 3 months; frequency/day: twice daily; amount 2 sachets (n=48) 2) Placebo (placebo); duration: 3 months; frequency/day: twice daily; amount 2 sachets (n=48)factorial design trial also looking at real or dummy lorazepam, and real or dummy hyoscine
Ritchie 1980; Trial held in UK; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Organic disease excluded Type of IBS: Unclear; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): mean 39 yr (14-82 yr); Gender (M/F): 25:71; Comorbidities: not stated	1) Ispaghula (Fybogel) (soluble fibre); duration: frequency/day: twice daily; amount 7g (n=48) 2) Coarse natural bran (bran); duration: frequency/day: daily; amount 20g (n=48)factorial design trial also looking at lorazepam, hyoscine,mebeverine and Motival
Soltoft 1976; Trial held in Denmark; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Inclusion: over 14yrs, no other disease present. Type of IBS: Mixed; IBS definition: Symptoms described; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): 40 (18-73)yrs; Gender (M/F): 21:38; Comorbidities: none; Weight, Length of time since diagnosis, duration of symptoms, ethnicity, socio-economic group	1) 10gm bran fibre biscuits containing 85% miller'swheat bran 10g 3 x day (insoluble fibre); duration: 6 weeks; frequency/day: TDS; amount 30g bran daily (n= 322) 2) Wheat biscuits of same size & appearance containing no bran- (placebo); duration: 6 weeks; frequency/day: three times daily; amount 0g brantds (n=27)

Study	*Participants*	*Interventions*
Tarpila 2004; Trial held in Finland; parallel; trial; Setting: not stated	Inclusion & Exclusion criteria: Exclusions – patients with colitis ulcerosa, Crohn's disease or malignancies of any kind or any abnormality in the screening lab tests. Systematic use of other bulk laxatives forbidden. Type of IBS: Constipation; IBS definition: Authors' def; Severity of IBS symptoms: Not stated; Bloating/flatus: All patients; Post infective: not stated Age (range): 45.5 (sd 12); Gender (M/F): 5:50; Comorbidities: none Weight: 63 kg(sd 13.5) dietary fibre intake was monitored by food questionnaire completed weekly	1) Foil sachets of 6g Flax seed (mixed fibre); duration: 3 months; frequency/day: 2-4 times/day; amount 12-24g/day (n=26) 2) Foil sachets of 6g psyllium fibre (mixed fibre); duration: 3 months; frequency/day: 2-4 times /day; amount 12-24g/day (n=29)
Villagrasa 1991; Trial held in Spain; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Exclusion: Other systemic disease, pregnancy, abnormal faecal analysis Inclusion: medical history of IBS for>3 yrs Type of IBS: Mixed; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Some patients; Post infective: not stated Age (range): 20-76yrs; Gender (M/F): 62:52; Comorbidities: nonesocio-economic group: stated as education level & occupation Clinical evaluation 3mths: bariu	1) High fibre diet 20gm + 10gm bran supplement (mixed fibre); duration: 2 years; frequency/day: once daily; amount 30g fibre daily (n=53) 2) Normal diet(10-15gm fibre)+ 120mg otilonium bromide (usual diet); duration: 24 months; frequency/day: once daily; amount 10-15gm fibre + 120mg otilium (n= 61)

C4: PRE/PRO-BIOTICS

Study	*Participants*	*Interventions*
Bittner 2005; Trial held in USA; parallel; trial; Setting: primary care	Inclusion & Exclusion criteria: not stated Type of IBS: Mixed; IBS definition: Rome II; Severity of IBS symptoms: mixed; Bloating/flatus: Not stated; Post infective: not post infective Age (range): 20- 70yrs; Gender (M/F): 2:23; Comorbidities: none Weight, Length of time since presentation, duration of symptoms, ethnicity, socio-economic group	1) 1x500mg Prescript-Assist capsule twice a day (stimulant); duration: 2 weeks; frequency/day: twice/day; amount 1gm/day (n=12) 2) 1xplacebo capsule twice a day (placebo); duration: 2 weeks;frequency/day: twice day; amount 0gm/day (n=13)
Gade & Thorn 1989; Trial held in Denmark; parallel; trial; Setting: primary care	Inclusion & Exclusion criteria: Exclusions: Pregnant women, laxative , spasmolytic, antidiarrhoeal & ntibiotic treatment inweek prior to participation. Type of IBS: Mixed; IBS definition: Authors' def; Severity of IBS symptoms: mixed; Bloating/flatus: Some patients; Post infective: not post infective Age (range): Mean: 34 yrs(16-60); Gender (M/F): 12:42; Comorbidities: NoneHamilton Miller review has assayed Paraghurt and estimated daily dose to be 8 x 10^6 CFU. IBS at least 6 months; implies that other IBS medication stopped	1) 4 x Paraghurt tablet (freeze dried Streptococcus faecium) 4 times/day with food (softeners); duration: 4 weeks; frequency/day: 4times/day; amount 8 tablets /day (dose estimated as 8 x 10^6 CFU/d) (n=32) 2) 4 x placebo tablets 4 times /day (placebo); duration: 4 weeks; frequency/day: 4 times/day; amount 0g /day (n= 22)
Kajander 2005; Trial held in Finland; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Inc.s- lactose intolerance. Exc.s - pregnant, GI disease or other, surgery, dementia, antimicrobial medication during previous 2 months Type of IBS: Mixed; IBS definition: Rome I; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: --- Age (range): 45.5 (21-65); Gender (M/F): 24:79; Comorbidities: noneWeight: BMI: 25.5kg/m2 Patients were allowed to continue other IBS medication (number not stated) Rome II also used. Sub groups Predefined.	1) 1 capsule: L. rhamnosus LC705, Bacillus breve Bb99, P.freudenreichii ssp.shermanii JS (probiotics); duration: 6 months; frequency/day: once /day; amount 1 capsule/day (8-9 x 10^9 CFU/day) (n=52) 2) 2) 1 placebo capsule (cellulose, stearate, gelatin) (placebo); duration: 6 months; frequency/day: once/day; amount 1 capsule/day (n=51)

Study	*Participants*	*Interventions*
Kim 2003; Trial held in USA; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Exclusion:No GI Disease, previous abdominal surgery, no use of medication that may alter gut motility, no over the counter medication and no antibiotic use within 2 weeks of recruitment. Type of IBS: Diarrhoea; IBS definition: Rome II; Severity of IBS symptoms: mixed; Bloating/flatus: Some patients; Post infective: not post infective Age (range): 19-70; Gender (M/F): 8:10; Comorbidities: none Duration of symptoms: Median 8yrs range(2-41 yrs) in intervention grp. Median 6yrs Range(1-22 yrs) in control grp. Implies no concurrent IBS medication.	1) VSL#3 powder sachet (Bifidobacteriumx 3 strains, Lactobacillus x 4strains, Streptococcus x1 strain); miscible with yoghourt, soluble in water (probiotics); duration: 8 weeks; frequency/day: 1 sachet x twice/day; amount 45 x 10^10 lyophilized bacteria/day (n=12) 2) 1 x identical looking placebo (starch) sachet x twice/day; miscible with yoghourt, soluble in water (placebo); duration: 8 weeks; frequency/day: twice /day; amount 0 lyophilized bacteria/day (n=13)
Kim 2005; Trial held in USA; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Exclusion: Pregnancy, previous abdominal surgery,long term antibiotic use or medication that may alter gut motility. Type of IBS: Mixed; IBS definition: Rome II; Severity of IBS symptoms: mixed; Bloating/flatus: All patients; Post infective: not post infective Age (range): 21 -75yrs; Gender (M/F): 3:45; Comorbidities: noneAll patients had visible distention >25% time for previous 12 m. Low dose antidepressants permitted during trial.	1) VSL#3 powder sachet (Bifidobacteriumx 3 strains, Lactobacillus x 4strains, Streptococcus x1 strain) in 6oz pasteurised yoghurt (probiotics); duration: 4 or 8 w (n=16, n=8 resp); frequency/day: 1 sachet twice/ day; amount 45 x 10^10 lyophilized bacteria/day (n=24) 2) 1 identical looking placebo sachet twice /day in 6oz yoghurt (placebo); duration: 4 or 8 w (n=9, n=15 resp); frequency/day: twice/day; amount 0 lyophilized bacteria/day (n=24)

Study	*Participants*	*Interventions*
Niedzielin 2001; Trial held in Poland; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Excl: when disorders excludable through abdominal ultrasound & rectosigmoidoscopy or colonoscopy Type of IBS: Mixed; IBS definition: Manning; Severity of IBS symptoms: mixed; Bloating/flatus: All patients; Post infective: not post infective Age (range): 45 (27-63yrs); Gender (M/F): 8:32; Comorbidities: none statedWeight: mean 63.5 kg(SD4.5) All patients had a previous history of IBS, treated with different medications and had been referred to secondary care because of problems with management.	1) Fruit drink 5% oatmeal soup fermented with L plantarum 299V; concn 5 x10^7 CFU/ml (probiotics); duration: 4 weeks; frequency/day: twice/day; amount 400mls twice/day (i.e., 4 x 10^10 CFU) (n=20) 2) Inactive fruit drink thsat looked ,smelled and tasted the same as active fruit drink. (placebo); duration: 4 weeks; frequency/day: twice /day; amount 0 probiotic twice /day (n=20)
Niv 2005; Trial held in Israel; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Exclusion: previous abdominal surgery, active organic GI disease, major psychiatric disorders Type of IBS: Mixed; IBS definition: Rome II; Severity of IBS symptoms: mixed; Bloating/flatus: Some patients; Post infective: post infective Age (range): 45yrs; Gender (M/F): 18:36; Comorbidities: noneDuration of symptoms: mean 6.7 (SD6.2) in Intervention. 9.2 (SD 11) in placebo. Other medications were continued; 20% received IBS medication.	1) Tablets of L. reuteri ATCC 55730 with 1 x 10^8 CFU (probiotics); duration: 6 months; frequency/day: 2 times/day; amount 4/day for 7d then 2/day (i.e.mainly 2 x 10^8 CFU) (n=27) 2) 4xidentical looking placebo tablets (placebo); duration: 6 months; frequency/day: twice/day; amount 0 probiotic/day (n= 27)
Nobaek 2000; Trial held in Sweden; parallel; trial; Setting: primary care	Inclusion & Exclusion criteria: Exclusion: pregnancy, previous abdominal surgery,mental disorders, organic GI diseases & other systemic disease.Antibiotic treatment of medication that may alter gut motility Type of IBS: Mixed; IBS definition: Rome II; Severity of IBS symptoms: mixed; Bloating/flatus: Some patients; Postinfective: not post infective Age (range): 48 (21-78)yrs; Gender (M/F): 16:36; Comorbidities: None Patients recruited via newspaper advert. IBS medication was exclusion.	1) 5% oatmeal soup fermented with Lactobacillus plantarum DSM 9843 with 5 x 10^7 CFU mixed with Rose-hip drink (probiotics); duration: 4 weeks; frequency/day: once daily; amount 400ml/day (5 x10^7 CFU) (n=30) 2) Rose-hip drink (placebo); duration: 4 weeks; frequency/day: once daily; amount 400mls (n=30)

Study	*Participants*	*Interventions*
Olesen & Hoyer 2000; Trial held in Denmark; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Exclusion: other chronic disease,abnormal dietray habits, regular use of strong analgesics/medication that may affect gut motility Type of IBS: Mixed; IBS definition: Manning; Severity of IBS symptoms: mixed; Bloating/flatus: Some patients; Post infective: not post infective Age (range): 45(SD13.1); Gender (M/F): 16:80; Comorbidities: noneWeight: mean 74.1 (SD 14.4) / 71.5 (SD 13.3) , duration of symptoms(mths) 159(SD141) / 175(SD143)	1) 10g sachet for 2 weeks then 20g for 10 weeks (osmotic); duration: 12 weeks; frequency/day: 10 gx twice day; amount 20g /day (n=52) 2) 10g placebo sachet (placebo); duration: 12 weeks; frequency/day: twice day; amount 10g twice/day (n=46)
O'Mahony 2004; Trial held in Ireland; parallel; trial; Setting: mixed	Inclusion & Exclusion criteria: Exclusion: other GI disease, other systemic diseases, pregnancy, previous abdominal surgery, lactose intolerance or immune defficiency Type of IBS: Mixed; IBS definition: Rome II; Severity of IBS symptoms: Not stated; Bloating/flatus: Some patients; Post infective: not post infective Age (range): 44.3(18-73)yrs; Gender (M/F): 27:48; Comorbidities: NONE Patients from gastroenterology clinics and newspaper advertisement. All participants were white. Overall, IBS type was: 28% IBS-D; 26% IBS- C; 45% IBS-A. Patients were instructed not to take laxatives or antimotility agents.	1) Lactobacillus salivarius UCC4331 (1 x 10^10) in malted milk drink (probiotics); duration: 8 weeks; frequency/day: once /day; amount 1x 10^10 live bacterial cells (n25) 2) Malted milk drink (placebo); duration: 8 weeks; frequency/day: once/day; amount 0 x probiotic (n= 25)3. Bifidobacterium infantis 35624 in malted milk drink, duration: 8 weeks; dose/day: 1x 10^10 live bacterial cells; frequency/day: once (n=25)
Saggioro 2004; Trial held in Italy; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Exclusion: not stated Type of IBS: Mixed; IBS definition: Rome II; Severity of IBS symptoms: mixed; Bloating/flatus: Some patients; Post infective: not post infective Age (range): 40 (26-64); Gender (M/F): 31:39; Comorbidities: NonePatients had been treated with drugs without success.:Lactobacillus plantarum LPO1 + Lactobacillus acidophilus LAO2 5x10^9(n=26)	1) Lactobacillus plantarum LPO1 & Bifidobacterium Breve BRO 5x10^9sachet dissolved in water (probiotics); duration: 4 weeks; frequency/day: Twice daily; amount 5 x 10^9 bacteria/day (n=242) 2) Placebo sachet dissolved in water (placebo); duration: 4 weeks; frequency/day: Twice/day; amount 0 probiotics/day (n=20)Group B

Study	*Participants*	*Interventions*
Tsuchima 2004; Trial held in Italy; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Exclusion:lactose intolerance, previuos abdominal surgery, psychiatric disorders, pregnacy, Type of IBS: Mixed; IBS definition: Rome II; Severity of IBS symptoms: mixed; Bloating/flatus: Some patients; Post infective: not post infective Age (range): 46(36-65)yrs; Gender (M/F): 20:48; Comorbidities: None Mean number of years since diagnosis:6.1 yrs All patients had undergone a number of treatments without significant and lasting benefit	1) SCM-III included Lactobacillus acidophilus1.25x10^6, Lactobacillus helveticus1.3x10^9 + bifidobacterium4.95x10^9 (probiotics); duration: 12 weeks; frequency/day: 10mls x 3 times /day; amount (n=34) 2) SCM-III inactive preparation (heat-inactivated) (placebo); duration: 12 weeks; frequency/day: 3 times/day; amount 10mls x3 times/day (n= 34)
Whorwell 2006; Trial held in UK; parallel; trial; Setting: primary care	Inclusion & Exclusion criteria: Exclusion: over 55 without sigmoidoscopy inlast 5 yrs, use of antipsychotic medication inlast 3 months, previous major psychiatric disorder in past 2 yrs, pregnant, lactose intolerance, immunodeficiency, previous abdominal surgery. Type of IBS: Mixed; IBS definition: Rome II; Severity of IBS symptoms: mixed; Bloating/flatus: Some patients; Post infective: not stated Age (range): 41.9yrs(19-69); Gender (M/F): 0:362; Comorbidities: nonePatients stratified by above/below 4 on Bristol Stool scale. Mean weight 71 kg (range 46-155)	1) Bifidobacterium infantis 35624 1x10^6 in capsule (probiotics); duration: 4 weeks; frequency/day: once daily; amount 1x10^6/day (n= 90) 2) Placebo capsule (placebo); duration: 4 weeks; frequency/day: once daily; amount og per day (n=90) 3) 1x10^8 B. Infantis 4) 1x10^10 B. Infantis

C5: ALOE VERA

Study	*Participants*	*Interventions*
Davis 2006; Trial held in UK; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Inclusion: previous failed management with antispasmodic, bulking agents & dietary interventions, Exclusion: other medical conditions, pregnancy Type of IBS: Mixed; IBS definition: Rome II; Severity of IBS symptoms: mixed;	1) 50 mls QDS of pink, mango flavoured Aloe Vera syrup (Aloe Vera gel); duration: 1 month; frequency/day: 4x day; amount 200mls /per day (n= 31) 2) 50 mls QDS pink, mango flavoured placebo syrup (placebo); duration: 1 month; frequency/day: 4 x day
Odes 1991; Trial held in Israel; arallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Exclusion: drug induced constipation, patients with diarrhoea or alternating IBS excluded. Type of IBS: Mixed; IBS definition: Symptoms described; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infe	1) 500mg caps celandin: aloevera:psyllium in 6:3:1 ratio (47% fibre 3x day = 0.71g fibre) (mixed fibre); duration: 4 weeks + 2 week basal period; frequency/day: 1-3 caps nocte; amount 0.71g per day (n=19) 2) Placebo capsule of identical appearance (placebo)

C6: EXCLUSION DIET

A) RANDOMISED STUDIES

Study	*Participants*	*Interventions*
Atkinson 2004; Trial held in UK; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Include age 18-75 yr; excluded if tertiary care pts, coexisting disease, GI surgery, lactose intolerance. Mean duration of IBS >10yr Type of IBS: Mixed; IBS definition: Rome II; Severity of IBS symptoms: severe; Bloating/flatus: Not stated; Post infective: not Age (range): mean 44 yr (17-74yr); Gender (M/F): 20:130; Comorbidities: Not stated. IgG antibody assay against 29 foods; intervention diet excluded those pt had a/b to; sham diet included an equally difficult to exclude staple food as true diet . Cow's milk replaced by potato, wheat with rice, yeast with whole egg, etc.	1) Exclusion diet (excluding foods to which pt had igg antibodies) (exclusion diet); duration: 3 months; frequency/day: ; amount (n=75) 2) Sham diet excluding same number of foods but not those to which pt had antibodies (sham diet); duration: 3 Months; frequency/day: amount (n=75)
Symons 1992; Trial held in Australia; crossover; trial; Setting: secondary care	Inclusion & Exclusion criteria: none stated Type of IBS: Mixed; IBS definition: Manning; Severity of IBS symptoms: mixed; Bloating/flatus: Some patients; Post infective: not stated Age (range): mean 45yrs; Gender (M/F): 12:27; Comorbidities: none; no baseline data given consecutive days; amount 20g fructose + 3.5g sorbitol (n=15)	1) 25g fructose + 5g sorbitol in 250 ml tap water (exclusion diet); duration: 2 days; frequency/day: once a day for 2 consecutive days; amount 25g fructose + 5g sorbitol (n=15) 2) 20g fructose + 3.5g sorbitol in 200mls water (exclusion diet); duration: 2 days; frequency/day: once a day for 2

B) NON-RANDOMISED STUDIES

Study (drop out rate)	*Diet*	*Details*
	LAMB, PEARS AND RICE DIET	
Bentley 1983 8/27 (29.6%); N=27	**Diet:** 2 weeks duration; initially only lamb, pears and rice, then other foods introduced individually. **Challenge**: identified foods reintroduced on 3 occasions, 3 days apart	14/21 remission after ED. This is just significant, but wide CI. Taking into account drop outs and assuming they are treatment failures makes the result non significant. 10/21 specific food intolerance identity confirmed in 3/8 by double blind challenge.
Parker 1995 53/253(21%); N=253 (phase 1) 33/129 (25%); N=129 (phase 2)	**Diet**: 2 weeks ED comprising of lamb, pears, white rice and spring water **Challenge**: single food re-introduction at daily intervals **Phase 2**: less restricted diet	100/200 improved on diet Phase 2: 39/96 improved on diet
	1 MEAT, 1 FRUIT AND DISTILLED WATER	
Jones 1982 4/25 (20%); N=25 (6 = food challenge)	**Diet**: 1 week of single meat, 1single fruit & distilled water **Challenge**: hospital double blind challenge	4/25 refused diet. 14/21 improved and identified foods that provoked symptoms – this is just significant, but wide CI. Including Refusers as failures means not significant. Food challenge: 10/12 test solutions identified correctly.

Study (Drop out rate)	*Diet*	*Details*
	LOW ALLERGENIC DIET AND SIMILAR	
McKee 1987 (not stated); N=40	**Diet**: 1 week low allergenic diet, excluded all sources of salicylates, amines, glutamates, additives **Challenge**: Open, frequency not stated	6/40 remission during exclusion diet
Nanda 1989 11/200 (5.5%); N=200	**Diet**: 3 week low allergenic, excluded dairy, cereals, citrus fruit, potato, tea, coffee, additives. **Challenge**: open challenge every 2 days	91/189 remission during ED 73/189 found specific foods by open food challenge Follow up approx 14 months 73/91 responders still compliant with ED
Petitpierre 1985 0% drop out; N=24	**Diet**: 3 weeks Low allergenic **Challenge**: open and single blind, Frequency not stated.	3/24 remission with ED but challenges negative 14/24 specific foods identified and confirmed by blind challenge 7/24 symptoms unchanged
Hawthorne 1991 5/38 (9.5%); N=38	**Diet**: 2 weeks exclusion of dairy, cereals, yeast, eggs, citrus fruits, tea, coffee, alcohol, potato, onion, tomato, banana, peas. **Challenge**: foods re-introduced at 2 day intervals following set protocol	5/38 refused to try diet 18/33 improved: 16/18 identified foods which exacerbated symptoms, 2/18 did not. 15/33 had no improvement from diet Follow-up of 16 improvers at 3 to 45 months.
Smith 1985 Not stated; N=28	**Diet**: 2 weeks diet allowed, lamb, white fish, cabbage, carrots, peas, Ryvita, dairy free margarine, black tea. **Challenge**: foods were reintroduced at 2 day intervals in responders	11/28 improved Follow-up at 1yr: 7/9 responders were still well and maintaining diet.

Study (Drop out rate)	*Diet*	*Details*
	FOOD EXCLUSION BASED ON IgG ANTIBODIES	
Drisko 2006 All patients completed study and follow up at 1 year; N=20	**Diet**: 2-3 weeks duration; tailored food exclusion based on IgE and IgG food and mould panels. **Challenge**: food reintroduced over several months	Statistically significant reduction in stool frequency (diarrhoea) from 4.29 (2.49) stools per day to 3.43 (1.22) Pain score (1 to 5 scale) 3.65 (1.12) to 2.71(1.38) p>0.5 (not significant) Overall QoL scores (100 point scale, high = better) 46.51(21.08) to 67.22(20.92) p<0.001 RE-introduction results?
Zar 2005; N=25	**Diet**: 6 months duration; IgG4 antibody titres to 16 common foods. These were excluded if titres >250mcg/l – most common exclusions: milk, cheese, eggs, beef, lamb, wheat and tomato. On average patients excluded 8 (3 -13) foods	Symptom score (scale 1-100) 21/25 showed statistically significant improvement in pain severity p<0.001, pain frequency p=0.034, bloating severity p=0.001, improved bowel habit p=0.004, QOL p=0.008 Follow up at 6 months: 6/15 lost to follow-up, the remaining patients maintained improvement
	FOOD EXCLUSION BASED ON IgG ANTIBODIES	
Zwetchkenbaum and Burakoff 1988; 1/10 (10%); N=10		3/9 remission of symptoms with ED; 6/9 had no change in symptoms. Challenges did not identify provoking food

Study (Drop out rate)	*Diet*	*Details*
	STARVATION DIET	
Kanazawa and Fukudo 2006 No drop out; N=58 hospitalised pts.	**Diet**: 10 days starvation diet followed by 5 days re-feeding (from 225 – 2100kca). Patients were allowed 2 litres of water + 500 ml xylitol solution. Patients also received brief psychotherapy for 12 weeks hospital stay.	Starvation significantly decreased the following symptoms: abdominal pain/discomfort, distension, diarrhoea, anxiety and QOL (p=0.001), nausea (p<0.01), anorexia p=0.02)
	LACTOSE RESTRICTED DIET	
Böhmer and Tuynman 1996 No drop out; 105 (70 IBS patients, 35 healthy controls)	**Diet**: 6 week duration; lactose restricted diet (no details given)	17/70 IBS patients had positive hydrogen breath test and glucose blood test compared to 2/35 controls. There was no difference in symptom score between groups at baseline. After dietary therapy, statistically significant decrease in symptom score in lactose intolerant group p<0.001. The lactose tolerant group had no change in scores. The incidence of lactose malabsorption was 4 times higher in IBS group than in healthy controls.

C7: LAXATIVES

Study	*Participants*	*Interventions*
Attar 1999; Trial held in France and UK; parallel trial; Setting: secondary care	Type of IBS: unclear if IBS; IBS definition: probably IBS for some patients; Severity of IBS symptoms: not stated; bloating/flatus: some patients; Post infective: not stated Age (range): 55 (SD 23) y (31% geriatric institutions); Gender (M/F): 21:94; Comorbidities: none stated. Inclusion & Exclusion criteria: Chronic idiopathic constipation, for >3 m, <3 stools/week and/or straining at stool. For patients 45 y, colonscopy/ barium enema within last 5 years. Exclusions: medicines that modify bowel habit; severe liver, renal, cardiac disease, pregnant. Comments: Patients could use suppositories/microenemas for relief. Possibly IBS: 20% & 35% of patients in control group had pain & bloating resp. If stools liquid, dose reduced to 1 sachet/day. After 2w pts could change dose to 1, 2 or 3 sachets/day. 31% geriatric	1) Polyethylene glycol 3350 (Movicol) powder in a sachet containing 13.12g PEG + NaCl + NaHCO3; each Sachet diluted in 125 ml water (osmotic); duration: 4 weeks; frequency/day: twice in 2 divided doses; amount 26.24 g (2 sachets) (n=60) 2) Lactulose (Lactulose Biphar) sachet containing 10g diluted in 15 ml water; each sachet diluted in 125 ml water (osmotic); duration: 4 weeks; frequency/day: twice in 2 divided doses; amount 20g (2 sachets) (n=55)
Bouhnik 2004; Trial held in France; parallel trial; Setting: primary care	Type of IBS: unclear if IBS; IBS definition: probably IBS for some patients; Severity of IBS symptoms: not stated; Bloating/flatus: some patients; Post infective: not stated age (range): mean 57 (18); Gender (M/F): 9:56; Comorbidities: none stated. Inclusion & Exclusion criteria: 6 months <3 BM/week and/or difficulty and/or straining; excl: drugs modifying bowel habit, severe liver, kidney or heart disease, pregnancy, breastfeeding. Comments: Patients asked to stop enema/suppositories 48h before first stool collection. 45-53% had bloating at washout and 30 and 45% had pain.	1) Lactulose (Duphalac) (osmotic); duration: 4 weeks; frequency/day: once; amount 20g – could vary to 10 or 30g (n=33) 2) Polyethylene glycol 4000 (Forlax) + electrolyte (osmotic); duration: 4 weeks; frequency/day: once; amount 20g – could vary to 10 or 30g (n=32)

Study	*Participants*	*Interventions*
Chaussade 2003; Trial held in France; parallel trial; Setting: primary care	Type of IBS: unclear if IBS; IBS definition: probably IBS for some patients; Severity of IBS symptoms: not stated; Bloating/flatus: some patients; Post infective: not stated Age (range): 52.2 (18.5)yr; Gender (M/F): 40:226; Comorbidities: none stated. Inclusion & Exclusion criteria: >3 months of <3BM/week or hard/lumpy stools requiring straining/feeling of incomplete emptying; excl: severe systemic illness, psychiatric disease, fragile colonic mucosa, occlusion /subocclusion abdo pain, ulcer, poor compliance. Comments: No physical or chemical laxatives (other than study medication) permitted during the study. At baseline, bloating was ~ 3 points on a scale of 1-4 (considerable) and pain 2.6. Implied use of Rome II criteria for chronic constipation.	1) Polyethylene glycol 3350 (Transipeg) plus electrolytes (osmotic); duration: 4 weeks; frequency/day: once; amount Standard: 5.9g (n=67) 2) Polyethylene glycol 4000 (Forlax) (osmotic); duration: 4 weeks; frequency/day: once; amount Standard: 10g (n=66)Group 3=max transipeg dose (11.8g): group 4=max Forlax dose (20g)
Corazziari 1996;Trial held in Italy; parallel trial; Setting: secondary care	Type of IBS: unclear if IBS; IBS definition: probably IBS for some patients; Severity of IBS symptoms: not stated; Bloating/flatus: some patients; Post infective: not stated Age (range): 42 (15) yr; Gender (M/F): 11:37; comorbidities: none stated. Inclusion & Exclusion criteria: 18-70 yr, <2 BM/week for 12 mo, or 2 or more of: <3 BM/week, straining, incomplete evacuation + hard stools at least 25%; Exc:organic d, anorectal lesions, abnormal lab tests, Inflam bowel d, pregnant, gi surgery, drugs affecting gut motility, chronic d. Comments: All patients instructed to standardise their diet to 15g/day fibre and 1500ml water and to refrain from laxatives and enemas. In run-in period 52-60% pts had pain and 84-91% had bloating, i.e. likely to beIBS.	1) PMF-100 (osmotic); duration: 8 weeks; frequency/day: twice a day; amount 250ml (n=25) 2) Placebo (placebo); duration: 8 weeks; frequency/day: twice a day; amount 250ml (n=23)

Study	*Participants*	*Interventions*
Corazziari 2000; Trial held in Italy; parallel trial; Setting: secondary care	Type of IBS: unclear if IBS; IBS definition: probably IBS for some patients; Severity of IBS symptoms: not stated; Bloating/flatus: some patients; Post infective: not stated Age (range): 43(15)yr; 18-73; Gender (M/F): 12:58; Comorbidities: none stated. Inclusion & Exclusion criteria: <2BM/wk for 12 mo or 2 or more of: <3 BM/wk, straining, incomplete emptying, hard stools at least 25%; Excl: organic d. GI tract, anorectal lesions, inflammatory bowel d, pregnant/no effective contraception, GI surgery, drugs, chron d.. Comments: All patients instructed to standardise their diet to 15g/day fibre and 1500ml water and to refrain from laxatives, rectal evacuants and enemas. Some patients had pain and bloating. Chronic constipation defined using Rome criteria.	1) Isosmotic PEG (PMF-100) (osmotic); duration: 20wk; frequency/day: twice daily (cd reduce to 1); amount 35g (n=33) 2) Placebo (placebo); duration: 20 wk; frequency/day: twice; amount n/a (n=37)
Dettmar 1998; Trial held in UK; parallel trial; Setting: primary care	Type of IBS: unlikely to be IBS; IBS definition: not IBS (indirect) - constipation; Severity of IBS symptoms: not stated; Bloating/flatus: some patients; Post infective: not stated Age (range): not stated; Gender (M/F): 139:250; Comorbidities: not stated. Inclusion & Exclusion criteria: Over 18 yr, simple constipation, excluded if pregnant, unstable diabetes, blood PR, other gastrointestinal disease, symptoms requiring hospital investigation, laxative abuse, drugs altering bowel habit, regular laxative use.Comments: General practice study in UK. The majority of patients reported pain, bloating or flatulence prior to the study. Authors were from Reckitt & Colman, manufacturers of fybogel. No details of duration of constipation.	1) Ispaghula (fybogel) (bulking agent); duration: 4 weeks; frequency/day: twice a day; amount 7g (n=224) 2) Other laxative (mostly lactulose) (overall); duration: 4 weeks; frequency/day: routine prescription; amount not stated (n=170)

Study	*Participants*	*Interventions*
Kienzle-Horn 2006; Trial held in Germany; parallel trial; Setting: primary care	Type of IBS: unclear if IBS; IBS definition: unclear; Severity of IBS symptoms: not stated; Bloating/flatus: not stated; Post infective: not stated Age (range): 19-89yr, mean around 58yr; Gender (M/F): 15:39; Comorbidities: none stated. Inclusion & Exclusion criteria: <3BM/wk for at least 3 months and/or straining, hard stool, low stool weight, incomplete emptying; excl: drug-induced, organic d, GI surgery, pregnancy, no contraception. Comments: Concomitant medications likely to cause changes in GI motility were not permitted. No information on pain or bloating.	1) Bisacodyl (stimulant); duration: 3 days; frequency/day: once; amount 10mg (n=28) 2) Placebo (placebo); duration: 3 days;frequency/day: once; amount n/a (n=27)
Kienzle-Horn 2007; Trial held in Germany; parallel trial; Setting: mixed	Type of IBS: constipation; IBS definition: symptoms described; Severity of IBS symptoms: mixed; Bloating/flatus: not stated; Post infective: not stated Age (range): 63 (23-94) yrs; Gender (M/F): 40:104; comorbidities: none. Inclusion & Exclusion criteria: Exclusion: organic disease of rectum + colon. Concomitant use of diuretics, adrencorticosteroids, cardiaclyosides, and recent use of either of the study medication not permitted. Comments: Weight, Length of time since presentation, duration of symptoms, ethnicity, socio-economic group	1) 5-10mg bisacodyl tablets daily (stimulant); duration: 4 weeks; frequency/day: once daily at night; amount 5-10mg per day (n=70) 2) 5-10mg sodium picosulphate solution (stimulant); duration: 4 weeks; frequency/day: once daily at night; amount 5-10mg per day (n=74)If more than 2 interventions, type in rest; otherwise clear box

Study	*Participants*	*Interventions*
Medoff 2004; Trial held in USA; parallel trial; Setting: primary care	Type of IBS: constipation; IBS definition: IBS for some pts; Severity of IBS symptoms: not stated; Bloating/flatus: some patients; Post infective: not stated Age (range): 48 (19-81) y; Gender (M/F): 8:35; Comorbidities: none stated. Inclusion & Exclusion criteria: Functional constipation or IBS-C; colonoscopy, sigmoidoscopy or barium enema in last 10y; ≤2 BMs/wk (later 3) + bloating/difficult evacuation. Exclusions: renal insufficiency; diarrhoea predominant, cardiac dysrhythmia, pregnant, NaP adv effects history. Comments: Weight 159 lb, race: 83 and 76% white 7/43 patients had IBS (all were responders) Patients were encouraged not to use alternative laxatives, and impact of this thought to be minimal. 7/43 patients had IBS	1) Sodium phosphate tablets, starting dose 4 (6g) daily, then titrated, mean 4.56 tablets (osmotic); duration: 28 days; frequency/day: once in morning (4 x 15min); amount mean 6.84g (n=16) 2) Sodium phosphate tablets, starting dose 8 (12g) daily, then titrated, mean 7.04 tablets (osmotic); duration: 28 days; frequency/day: once in morning (4 x 15min); amount mean 10.56g (n=24)
Quah 2006; Trial held in Singapore; crossover trial; Setting:secondary care	Type of IBS: unclear if IBS; IBS definition: not IBS (indirect)-constipation; Severity of IBS symptoms: not stated; Bloating/flatus: not stated; Post infective: not stated Age (range): median 50yr, 18-85; Gender (M/F): 16:34; Comorbidities: none stated. Inclusion & Exclusion criteria: 3 mo of 2 or more of: straining, lumpy/hard stools, incomplete emptying, sensation of obstruction, manual evacuation, <3BM/wk; excl: colonic pathology, abnormal thyroid, drugs, pregnant, severe liver/renal/ cardiac d, uncontrolled diabetes, incontinence. Comments: Patients taking concommitant medication that could modify bowel habit were excluded. Incidence of pain and bloating at baseline not stated. Chronic constipation defined using Rome criteria.	1) Lactulose (osmotic); duration: 4 weeks; frequency/day: twice daily; amount 20ml (n=50) 2) Ispaghula (fybogel) (bulking agent); duration: 4 weeks; frequency/day: once; amount 3.5g (n=50)

Study	*Participants*	*Interventions*
Rouse 1991; Trial held in UK; parallel trial; Setting: primary care	Type of IBS: unlikely to be IBS; IBS definition: not IBS (indirect) - constipation; Severity of IBS symptoms: not stated; Bloating/flatus: not stated; Post infective: not stated Age (range): mean around 50.5 yr; Gender (M/F): Not stated; Comorbidities: Not stated. Inclusion & Exclusion criteria: At least 3 weeks of 3 or less bowel evacuations er week; excluded if constipation secondary to organic cause, laxative abusers, galactosaemia, lactose intolerance. Comments: 12/124 patients took other laxatives during the study and were considered to be protocol violators. General practice study in UK. 53-54% patients in both groups had abdominal pain after 7 days. Bloating not mentioned.	1) Ispaghula (fybogel) (bulking agent); duration: 4 weeks; frequency/day: bd; amount 7g (n=56) 2) Lactulose (osmotic); duration: 4 weeks; frequency/day: bd; amount 30ml (increasing to 60ml if necessary (n=56)
Wulkow 2007; Trial held in Germany; parallel trial; Setting: primary care	Type of IBS: constipation; IBS definition: probably IBS for some patients; Severity of IBS symptoms: mixed; Bloating/flatus: some patients; Post infective: not stated Age (range): 54 (19-98) yrs; Gender (M/F): 11:46; Comorbidities: . Inclusion & Exclusion criteria: Exclusion: organic GI disease, abdominal surgery within 4 weeks, major disease, malignancy, chronic spinal injury and females who were pregnant or breastfeeding.	1) 7mg sodium picosulphate (stimulant); duration: 3 days; frequency/day: once daily; amount 7mg/day (n=29) 2) 0 mg placebo (placebo); duration: 3 days; frequency/day: once daily; amount 0mg/day (n= 28) If more than 2 interventions, type in rest; otherwise clear box

C8: ANTI-MOTILITY

Study	*Participants*	*Interventions*
Amery 1975; Trial held in Belgium; parallel; trial; Funding: Authors from Janssen pharmaceutica (manufacturers of Imodium - loperamide); Setting: primary care.	Inclusion & Exclusion criteria: Included: patients aged 8 and over, presenting acute diarrhoea. Type of IBS: ----; IBS definition: Not IBS (indirect) - diarrhoea; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated. Age (range): median 31 (9 to 82); Gender (M/F): 122:91; Co-morbidities: 70/213 patients had infectious diarrhoea; rest had unknown aetiology.	1) Loperamide 2 mg. (Loperamide); duration: 24 hours; frequency/day: 2; amount 4 mg (n=56) 2) Placebo (placebo); duration: 24 hours; frequency/day: 2; amount (n= 59)diphenoxylate (2.5 mg). Class: co-phenotrope. Intervention time: 24 hours. Frequency/ day: two. Intervention dose/day: 4 mg (n=48).
Cornett 1977; Trial held in USA; parallel; trial; Funding: Janssen Pharmaceutica; Setting: not stated.	Inclusion & Exclusion criteria: Inclusion: Acute diarrhoea, with at least four liquid or soft bowel movements during the 24-hour period prior to start of study, without antidiarrheoal medi. 12 hours prior to entrance to study. Exclude: patients with life threatening diarrhoea. Type of IBS: ----; IBS definition: Not IBS (indirect) - diarrhoea; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): (11 to 84 years); Gender (M/F): 176:164; Co-morbidities: not stated. Acute diarrhoea with vomiting, cramps etc. Note: Potential non-adults in the study: table reveals that 8% were in age group 10 to 19.	1) Loperamide: capsule of 2 mg; 2 capsules initially (Loperamide); duration: 72 hours; frequency/day: up to 8 capsules; amount up to 16 mg (n=159) 2) Diphenoxylate (2.5 mg) plus atropine sulphate (0.025 mg) in one capsule. 2 capsules initially (co-phenotrope); duration: 72 hours; frequency/day: up to 8 capsules; amount up to 20 mg (n=181).

Study	*Participants*	*Interventions*
Dettmer 1994; Trial held in Germany; parallel; trial; Funding: ;Setting: secondary care.	Inclusion & Exclusion criteria: Included: outpatients aged 18 and over with acute (present 24 to 72 hours) diarrhoea (at least 3 watery/ loose stools within 24-hours). Excluded: Patients with chronic, bloody, or severe diarrhoea, requiring hospital admission, antibiotics within 7 days. Type of IBS: ----; IBS definition: Not IBS (indirect) - diarrhoea; Severity of IBS symptoms: mixed; bloating/flatus: Not stated; Post infective: not stated Age (range): median 30 years (18 to 88); Gender (M/F): 115:115; Co-morbidities: Acute diarrhoea, 174/230 tested for bacterial infection Median given in many of the outcomes, not mean.	1) Loperamide oxide (slow-release form of loperamide) 1 mg; two tablets initially (Loperamide); duration: up to 72 hours; frequency/day: up to 8 per day; amount up to 8 mg (n=76). 2) Placebo: two tablets initially ; duration: up to 223 h frequency/day: up to 8 per day; (n= 76). 3) Loperamide oxide (slow-release form of loperamide) 2 mg; two tablets initially. N=78. Time: 72 hours. Dose/day: up to 16 mg. Frequency/day: up to 8.
Dom 1974; Trial held in Belgium; parallel; trial; Funding: ; Setting: primary care.	Inclusion & Exclusion criteria: inclusion: presence of incapacitating acute diarrhoea (4 or more unformed stools during the 24-hour period prior to consultation) in non-hospitalized patients aged 14 or more. Type of IBS: ----; IBS definition: Not IBS (indirect) - diarrhoea; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): median 35 years (14 to 95); Gender (M/F): 330:284; Co-morbidities: acute diarrhoea, chronic patients excluded. 283 patients excluded after randomisation as did not meet entry criteria. 41 non-compliant patients excluded so not ITT.	1) Loperamide: capsule of 2 mg; 2 capsules initially (Loperamide); duration: 3 days; frequency/day: up to 10 capsules; amount up to 20 mg (n=423 (estimate)). 2) Diphenoxylate (2.5 mg) plus atropine sulphate (0.025 mg) in one capsule. 2 capsules initially (co-phenotrope); duration: 3 days; frequency/day: up to 25 mg; amount up to 10 capsules (n=423 (estimate)

Study	*Participants*	*Interventions*
Dreverman and van der Poel 1995; Trial held in Netherlands; parallel; trial; Funding: ; Setting: primary care.	Inclusion & Exclusion criteria: Included: patients who had passed 4 or more loose/ watery stools within 24-hour prior to consultation, present between 24t o 72 hrs. Excluded: chronic diarrhoea, serious pathology, major gastrointestinal surgery, had taken interfering medicine, pregnant women. Type of IBS: ----; IBS definition: Not IBS (indirect) - diarrhoea; Severity of IBS symptoms: mixed; Bloating/flatus: Not stated; Post infective: not stated Age (range): 16-75; Gender (M/F): 136:106; Co-morbidities: Acute diarrhoea, viral/food related/bacterial Infections.	1) Loperamide-oxide 0.5 mg: initially 2; duration: 3 days; requency/day: up to 7; amount up to 3.5 mg (n=76). 2) Placebo; duration: 3 d; frequency/day: up to 7 (n=78). Operamide-oxide 1 mg; initially 2. 3) Intervention time: 3 days. Frequency/day: up to 7; ntervention dose/day: 7 mg (n=80).
Efskind 1995; Trial held in Norway; parallel; trial; Funding: Janssen pharmaceutica (manufacturers of Imodium - loperamide) provided the drug, monitored the study and gave statistical support; Setting: primary care.	Inclusion & Exclusion criteria: Included: cases 18 and over, with IBS of at least 1 year, with weekly symptoms for at least 3 months with main symptoms: abdominal pain, changing stool patterns/ consistency. Excluded: gastrointestinal/endocrinologic diseases, operations, pregnant women. Type of IBS: Unclear; IBS definition: Authors' def; Severity of IBS symptoms: mixed; Bloating/flatus: Some patients; Post infective: not stated Age (range): age 18 years and over; Gender (M/F): 18:54; Co-morbidities: Rescue medication not allowed. Values of outcomes read from graph.	1) Loperamide 2 mg (one capsule initially) (operamide); duration: 7 weeks; frequency/day: 1 n evening; amount up to 6 mg (n= 35) 2) Placebo (one capsule initially); duration: 7 weeks; requency/day: 1; amount placebo dose djustment in weeks 1-2 (n= 34).

Study	*Participants*	*Interventions*
Ericsson 1990; Trial held in Mexico; parallel; trial; Funding: Setting: not stated.	Inclusion & Exclusion criteria: Included: US adults in Mexico attending summer school with diarrhoea defined as 3 or more unformed stools in 24-hours plus symptom of cramps, nausea or vomiting. Excluded: cases with frankly bloody stools or temperature 39 C or over, diarrhea longer than 14-d Type of IBS: ----; IBS definition: Not IBS (indirect) - diarrhoea; Severity of IBS symptoms: Not stated; bloating/flatus: Not stated; Post infective: not stated Age (range): mean 24 years; Gender (M/F): not stated; Co-morbidities: Shigella, Salmonella, Campylobacter, E coli, Plesiomonas, Endamoeba, Aeromonas Infection/travellers d. Setting may be primary care. 76% o cases had	1) Loperamide hydrochloride 2 mg: 2 tablets initially uration: until the patient well, at least 5 days frequency/day: up to 8; amount up to 16 mg (n=46). 2) Placebo (placebo); duration: until the patient well, at least 5 days; frequency/day: up to 8; (n=45)
Harford 1980; Trial held in USA; crossover; trial; Funding: Support from non industry grants; Setting: not stated.	Inclusion & Exclusion criteria: Included: patients with chronic diarrhoea (increased frequency/fluidity/ volume of stool) and faecal incontinence, in a stable condition Type of IBS: Unclear; IBS definition: IBS for some patients; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): (31-70 years); Gender (M/F): 1:14; Co-morbidities: 4/15 had IBS, individual patient data given – SUBGROUP analysis. Washout time short but acute study. Rescue medication not allowed. First 4 patients had 2 tablets / 6h then next set had 1/6h.	1) Diphenoxylate plus atropine sulphate (Lomotil). 2 tablets or 1 tablet (fixed dose) (co-phenotrope); duration: 3 days; frequency/day: 4 times; amount 10 or 20 mg diphenoxylate (4 or 8 tablets) (n= 15) 2) Small white tablet manufactured by Eli Lilly and company (Blank No 21) (placebo); duration: 3 days; frequency/day: 4 times; amount 4 or 8 tablets (n=15)

Study	*Participants*	*Interventions*
Hovdenak 1987 overall; Trial held in Norway; parallel; trial; Funding: none stated; Setting: not stated.	Inclusion & Exclusion criteria: Included: Patients with IBS with symptoms present for 6 months or more. Excluded: patients with organic diseases, obvious food related disorders, patients with mild/ transient/ infrequent complaints. Type of IBS: Mixed; IBS definition: 'Had IBS'; Severity of IBS symptoms: mixed; Bloating/flatus: Not stated; Post infective: not stated Age (range): not stated; Gender (M/F): not stated; Co-morbidities: not stated IBS-D (16); IBS-A with pain (21); IBS-A without pain (12); IBS-C (9) reported as subgroups (not stratified before randomisation). Rescue medication not mentioned.	1) Loperamide (4 mg nocte) (Loperamide); duration: 3 weeks; frequency/day: 1; amount 4 mg nocte (n=29) 2) Placebo (placebo); duration: 3 weeks; frequency/day: 1 (n=29).
Jaffe G 1977; Trial held in UK; parallel; trial; Funding:; Setting: primary care.	Inclusion & Exclusion criteria: Inclusion: sufferers from acute diarrhoea of less than 3 days. Excluded: diarrhoea due to other pathological condition, sufferers from chronic diarrhoea, patients taking other concurrent medication. Type of IBS: ----; IBS definition: Not IBS (indirect) - diarrhoea; Severity of IBS symptoms: Not stated; bloating/flatus: Not stated; Post infective: --- Age (range): mean 37 years SD 12.5 (range unknown); Gender (M/F): 42:41; Co-morbidities: Acute diarrhoea; 39/83 had vomiting. Duration of diarrhoea was up to 3 day	1) Diphenoxylate (2.5 mg) plus atropine sulphate (0.025 mg) in one capsule. 4 capsules initially (co-phenotrope); duration: 4 days; frequency/day: up to 4 (5 mg: 2 capsules*2.5mg); amount up to 20 mg (n=42) 2) Imodium (2 mg): 2 capsules initially (loperamide hydrochloride); duration: 4 days; frequency/day: up to 8 capsules; amount up to 16 mg (n=41)

Study	*Participants*	*Interventions*
Lavo 1987; Trial held in Sweden; parallel; trial; Funding: none stated; Setting: secondary care	Inclusion & Exclusion criteria: Included: aged 18 to 70, diarrhoea as main symptom, symptoms present for more than 3 months. Excluded: demonstrable organic bowel disease. Type of IBS: Diarrhoea; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): mean 43 years (22-69); Gender (M/F): 3:18; Comorbidities: Mainly female population. Mean duration of symptoms 106 months (range 10 to 240). Two weeks without interfering medication before study. No IBS definition, but they had been 'referred'. Rescue medication not mentioned.	1) Loperamide: capsule of 2 mg; 1 capsule initially (Loperamide); duration: 13 weeks; frequency/day: 1 nocte; amount up to 8 mg (4 capsules) (n=13) 2) Placebo (placebo); duration: 13 weeks; frequency/day: 1 nocte; amount up to 4 mg (n= 12)
Lee, 1968; Trial held in UK; parallel; trial; Funding: ; Setting: primary care	Inclusion & Exclusion criteria: Included: patients aged 16 or over with diarrhoea defined as more frequent and looser consistency than expected. Excluded. Diarrhoea had lasted more than 5 days, and sinister aetiology of diarrhoea. Type of IBS: -- --; IBS definition: Not IBS (indirect) - diarrhoea; Severity of IBS symptoms: mild; Bloating/flatus: Not stated; Post infective: not stated Age (range): mean 41years (no range); Gender (M/F): 80:84; Comorbidities: 'gastric flu'/'gastroenteritis'; no of tablets/ table spoons was "as recommended", but dose per tablet is not stated (could be in Murphy, 1968). 3 patients were excluded, but we do not know from	1) Lomotil with Neomycin. 4 tablets initially (co-phenotrope); duration: 4 days; frequency/day: up to 8 tablets; amount dose per tablet not mentioned in the paper (n=83 (estimate)) 2) Kaolin and morphine mixture BPC: 2 tbsp initially duration: 4 days; frequency/day: up to 4 table spoons; amount dose per tablespoon not mentioned in this paper (n= 83 (estimate))

Study	*Participants*	*Interventions*
Lustman 1987; Trial held in UK; parallel; trial; Funding: ; Setting: primary Care.	Inclusion & Exclusion criteria: Included: aged 18-70 suffering from acute diarrhoeal illness (3 or more loose/watery stools in 24-hour prior to entry) for less than 24 hours. Excluded: antibiotics 48 hours prior to entry, jaundice, intestinal obstruction, acute ulcerative colitis. Type of IBS: ----; IBS definition: Not IBS (indirect) - diarrhoea; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): median 35; Gender (M/F): 62:90; Co-morbidities: Acute diarrhoea (30% vomiting).	1) Diphenoxylate hydorchloride2.5 mg plus atropine sulphate 0.025 mg; 4 tablets initially (co-phenotrope); duration: 72 hours; frequency/day: 4 (times2 tablets); amount up to 20 mg (n=75) 2) Placebo: 4 tablets initially (placebo); duration: 72 hours; frequency/day: 4 (times 2 tablets); amount (n=77)
Pelemans and Vantrappen 1976; Trial held in Belgium; crossover; trial; Funding: none stated; Setting: not stated.	Inclusion & Exclusion criteria: Inclusion: Adult patients with well documented chronic diarrhoea. Only co-operative, reliable patients with at least three unformed stools per day for 3 consecutive days. Type of IBS: Diarrhoea; IBS definition: IBS for some pts; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): median 40 years (24 to 63); Gender (M/F): 12:11; Co-morbidities: 15/23 patients had had surgery4/23 patients had IBS; 18 IBD; individual patient data given for IBS. Intervention time 14 to 49 days: patients adjusted the dose (up to 5 capsules per day). Efficacy results given at 2-3 weeks only so not	1) Loperamide: capsule of 2 mg; 2 capsules initially (Loperamide); duration: from 14 to 49 days (median 24); frequency/day: not stated; amount up to 10 mg (5 capsules) (n=23) 2) Diphenoxylate (5 mg) plus atropine sulphate (0.05 mg) (0.05 mg) in one capsule. 2 capsules initially (co-phenotrope); duration: from 14 to 49 day; median 26; frequency/day: not stated; amount up to 25 mg (5 capsules) (n= 23).

Study	*Participants*	*Interventions*
Taneja 2004; Trial held in India; parallel; trial; Funding: ; Setting: secondary Care.	Inclusion & Exclusion criteria: Included: Confirmed IBS (Rome II), male, age 20 to 50: Symptoms longer than 3 month of stool frequency and consistency. Excluded: people with systemic disease, major psychiatric problem, chronic smoking/alcohol, chronic use of drugs Type of IBS: Diarrhoea; IBS definition: Rome II; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): mean 30.9 years (20 to 50); Gender (M/F): 22:0; Co-morbidities: setting: 'referred from Gastroenterology clinics'. Ethnicity: study conducted in India.	1) Loperamide: capsule of 2 mg (Loperamide); duration: 2 months; frequency/day: up to 3 capsules; amount up to 6 mg (n= 13) 2) Set of 12 asanas and Surya Nade Pranayama (Yogic treatment); duration: 2 months; frequency/day: 2 (morning and evening; amount no medicine intake (n= 9)

C9: ANTISPASMODICS

Study	*Participants*	*Interventions*
Berthelot 1981Trial held in France parallel trial	Inclusion & Exclusion criteria: Type of IBS: Unclear; IBS definition: 'Had IBS'; Severity of IBS symptoms: ----; bloating/flatus: ---; Post infective: --- Age (range): ; Gender (M/F): ; Comorbidities: Study in French - no English abstract	1) Mebeverine (duspatalin) (Antispasmodic); duration: 8 weeks; frequency/day: once; amount 400mg (n=36) 2) Placebo (placebo); duration: 8 weeks; frequency/day: once; amount n/a (n=33)
Carling 1989Trial held in Sweden crossover first period trial Setting: secondary care	Inclusion & Exclusion criteria: Inclusions: active IBS; Exclusions: liver disease, active peptic ulcer disease, previous gastrectomy or vagotomy. Pregnant or nursing women, patients taking anticholinergics or antidepressants. Type of IBS: Mixed; IBS definition: Symptoms described; Severity of IBS symptoms: Not stated; Bloating/flatus: All patients; Post infective: not stated Age (range): 43 (18-63); Gender (M/F): 7:19; Comorbidities: none statedHistory of IBS 8.9 and 9.3 y. One week run-in. 1st period data IBS-C or IBS-A; active IBS symptoms	1) Hyoscamine (Egazil) 1-2 tablets; 0.2 mg + 1-2 placebo capsules (Antispasmodic); duration: 2 weeks; frequency/day: 3 times; amount 0.6 to 1.2 mg (n=13) 2) Peppermint oil capsules (Colpermin) 1-2 x 0.2 ml + 1-2 placebo tablets (Antispasmodic); duration: 2 weeks; frequency/day: 3 times; amount 0.6 to 1.2 ml (n=13) 3) Placebo capsules and placebo tablets; 2 weeks; 3 times/day (n=14)
Czalbert 1990Trial held in Hungary parallel trial Setting: not stated	Inclusion & Exclusion criteria: Can't translate Type of IBS: Unclear; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Some patients; Post infective: not stated Age (range): 48 (34-79); Gender (M/F): 8:26; Comorbidities: unclearHungarian language, much missing information. From Cochrane review. Randomisation unclear.	1) Peppermint oil (Colpermin) 0.2ml (Antispasmodic); duration: 6-12 weeks; frequency/day: 3 times; amount 0.6 ml (n=17) 2) Placebo (placebo); duration: 6-12 weeks; frequency/day: unclear; amount (n=17)

Study	*Participants*	*Interventions*
Gilbody 2000Trial held in UK parallel trial Setting: primary care	Inclusion & Exclusion criteria: Rome criteria of 1992 (?Rome II?) and VAS for global abdominal pain>40mm Type of IBS: Unclear; IBS definition: Rome II; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): median around 33 (18-68); Gender (M/F): 39:143; Comorbidities: not stated primary endpoint of study to establish equivalence between 2 doses of mebeverine	1) Mebeverine hydrochloride MR (Antispasmodic); duration: 8 weeks; frequency/day: bd; amount 400mg/day (n=92) 2) Mebeverine hydrochloride (Antispasmodic); duration: 8 weeks; frequency/day: tds; amount 405mg/day (n=92)
Inauen 1994Trial held in Switzerland parallel trial Setting: secondary care	Inclusion & Exclusion criteria: <18 yr, tumour or inflammation of g-I tract, pregnancy, already treated with antispasmodic Type of IBS: Mixed; IBS definition: Authors' def; Severity of IBS symptoms: mixed; Bloating/flatus: Some patients; Post infective: not stated Age (range): 18+; Gender (M/F): ; Comorbidities: not stated	1) Mebeverine slow release (Antispasmodic); duration: 3 weeks; frequency/day: bd; amount 400mg/day (n=26) 2) Mebeverine (Antispasmodic); duration: 2 weeks; frequency/day: tds; amount 405mg/day (n=28)
Kruis 1986Trial held in Germany parallel trial Setting: secondary care	Inclusion & Exclusion criteria: Exclusion;Other medication Type of IBS: Mixed; IBS definition: Symptoms described; Severity of IBS symptoms: Not stated; Bloating/flatus: some patients; Post infective: not stated Age (range): 42 (19-71yrs); Gender (M/F): 47:73; Comorbidities: none	1) 4x100mg daily mebeverine (Antispasmodic); duration: 16 weeks; frequency/day: 3 X day; amount 400mg daily (n=40) 2) 2) 4x0mg daily Placebo mebeverine (placebo); duration: 16 weeks; frequency/day: 3 xday; amount 0mg daily (n=40)
Lech 1988Trial held in Denmark parallel trial Setting: secondary care	Inclusion & Exclusion criteria: Unclear Type of IBS: unclear; IBS definition: Symptoms described; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): 43 (20-72) years; Gender (M/F): 10:32; Comorbidities: unclearIn Danish, from Cochrane Review. Many details unclear. Outpatients	1) Peppermint oil in gelatine 4 capsules (200mg) half hour before each main meal (Antispasmodic); duration: 4 weeks; frequency/day: 3 times; amount 600 mg (n=19) 2) Placebo capsules filled with soyabean oil as intervention (placebo); duration: 4 weeks; frequency/day: 3 times; amount (n=23)

Study	*Participants*	*Interventions*
Liu 1997Trial held in Taiwan parallel trial Setting: secondary care	Inclusion & Exclusion criteria: Exclusions: hepatic, renal or cardiac disease, anaemia or other GI disease; history of recent weight loss or rectal bleeding; medication with hypnotics, tranquilisers, laxatives, antacids, anticholinergics or antispasmodics, pregnancy /breast feeding Type of IBS: Unclear; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Some patients; Post infective: not stated Age (range): 18-70; Gender (M/F): 66:44; Comorbidities: about half patients had symptoms of non-ulcer dyspepsiaOutpatients; active symptoms of IBS; nb no side effects apart from difficulty swallowing capsules	1) Copermin enteric coated capsule containing 187 mg peppermint oil in thixotropic gel (Antispasmodic); duration: 4 weeks; frequency/day: 3 to 4 times 30 min before meals; amount 561-748 mg (n=55) 2) Identical capsule containing an inert oil (placebo); duration: 4 weeks; frequency/day: 3 to 4 times 30 min before meals; amount (n=55)
Mitchell 2002Trial held in UK parallel trial Setting: secondary care	Inclusion & Exclusion criteria: alcohol/drug abuse, breastfeeding, concomitant disease with abdominal symptoms/constipation, uncontrolled endocrine disorders, history of abdominal surgery, significant renal/ hepatic/ cardiac/ systemic disease Type of IBS: Mixed; IBS definition: Rome I; Severity of IBS symptoms: mixed; Bloating/flatus: Not stated; Post infective: not stated Age (range): mean 39.6 (15.0), range 19-73; Gender (M/F): 21:86; Comorbidities: Weight mean 68.3kg, ethnicity 100% Caucasian	1) Alverine citrate capsule (Antispasmodic); duration: 12 weeks; frequency/day: tds; amount 360mg (n=53)2) placebo (placebo); duration: 12 weeks; frequency/day: tds; amount n/a (n=54)
Page 1981Trial held in USA parallel trial Setting: secondary care	Inclusion & Exclusion criteria: Type of IBS: Constipation; IBS definition: Authors' def; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): 36.7yr, 18-65yr; Gender (M/F): 12:59 completers; Comorbidities: Duration of symptoms <5 yr, median 2 yr. 26 of original 97 pts assessed excluded during 1 week run in period, mostly because of no pain	1) Dicyclomine bromide (Antispasmodic); duration: 2 weeks; frequency/day: qds; amount 160mg (n=34) 2) 2) placebo (placebo); duration: 2 weeks; frequency/day: qds; amount n/a (n=37)

Study	*Participants*	*Interventions*
Nigam 1984Trial held in India parallel trial Setting: secondary care	Inclusion & Exclusion criteria: not stated Type of IBS: Unclear; IBS definition: Authors' def; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): 34.5 (5.7) 16-68 yr; Gender (M/F): 92:76; Comorbidities: not statedComplicated factorial design but can be treated as parts	1) Hyoscine (Antispasmodic); duration: 3 months; frequency/day: not stated; amount not stated (n= 21) 2) Placebo (placebo); duration: 3 months; frequency/day: not stated; amount n/a (n=21)
Ritchie 1979Trial held in UK parallel trial Setting: secondary care	Inclusion & Exclusion criteria: Excluded: patients with organic disease Type of IBS: Unclear; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): all pts 38 (16-69); Gender (M/F): all pts 22:74; Comorbidities: not Stated Factorial design. Six other treatments with various combinations of lorazepam, hyoscine and ispaghula with corresponding placebos	1) Hyoscine butylbromide (Buscopan) 10mg (Antispasmodic); duration: 3 months; frequency/day: 4 times; amount 40 mg (n=12) 2) Placebo (placebo); duration: 3 months; frequency/day: not stated; amount not stated (n=12)
Schafer 1990Trial held in Germany parallel trial Setting: ----	Inclusion & Exclusion criteria: Type of IBS: ----; IBS definition: 'Had IBS'; Severity of IBS symptoms: ----; bloating/flatus: ---; Post infective: --- Age (range): ; Gender (M/F): 256:456; Comorbidities: Study in German - English abstract	1) Hyoscine plus paracetamol (Antispasmodic); duration: 4 weeks; frequency/day: tds; amount 30mg + 1500mg (n=177) 2) Placebo (placebo); duration: 4 weeks; frequency/day: tds; amount n/a (n=178) 3) Hyoscine alone; 4) Paracetamol alone

C10: ANTIDEPRESSANTS

Study	*Participants*	*Interventions*
Boerner 1988; Trial held in Germany; parallel trial; Setting: mixed.	Inclusion & Exclusion criteria: Type of IBS: Mixed. IBS definition: Authors' def. Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated. Age (range): range 22- 70 years; Gender (M/F): ; Co-morbidities: some patients had depression. Translation from German; from Cochrane review. At baseline doxepine group score on HAMD (0-20) 11.7; control group 9.8.	1) Doxepine 50mg (tricyclic); duration: 8 weeks; frequency/day: once daily; amount 50 mg (n=40). 2) Placebo identical capsule (placebo); duration: 8 weeks; frequency/day: once daily (n=39).
Creed 2003; Trial held in UK; parallel trial; Setting: secondary care.	Inclusion & Exclusion criteria: Included: duration of symptoms >6 months, failure to respond to usual treatment, severe abdominal pain. Excluded: contraindication to psychotherapy or paroxetine. Type of IBS: Mixed, IBS definition: Rome I. Severity of IBS symptoms: severe; Bloating/flatus: Not stated; Post infective: not stated. Age (range): mean 40 yrs SD=10.5. Gender (M/F): 52:205. Co-morbidities: 47% had anxiety or depression. Median duration 8 y. Refractory IBS. 29% IBS-D, 23% IBS-C. 55% >12 yrs education. 12% sexual abuse. 99% white, 47% psychiatric disorder. Concurrent dedication stopped in active interventions (author info). Follow up period had some paroxetine in all arms.	1) Paroxetine (SSRI selective serotonin reuptake inhibitors); duration: 3 months; frequency/day: 1; amount 20 mg (n=86). 2) One long (2 hrs) session, followed by 7 shorter (45 minutes) sessions psychotherapy (psychotherapy); duration: 3 months frequency/day: 8 sessions over 3 months; amount 8 sessions over 3 months (n=85). 3) "Routine care" by gastroenterologist and usual care including antispasmodics, laxatives, antidiarrhoeal medication or additional analgesics for 3 months.

Study	*Participants*	*Interventions*
Kuiken 2003; Trial held in Netherlands; parallel trial; Setting: secondary care.	Inclusion & Exclusion criteria: Inclusions: less than 50 points on Zung Self-rating depression scale (i.e. not depressed). Exclusions: organic disease; pregnancy; breast feeding; previous abdominal surgery. Type of IBS: Mixed. IBS definition: Rome I. Severity of IBS symptoms: Not stated; Bloating/flatus: Some patients; Post infective: not stated. Age (range): 40y (18-59). Gender (M/F): 18:22. Co-morbidities: None stated; not depressed Mean duration of symptoms 5.9y. 40% IBS-D; 28% IBS-C; 32% IBS-A. Refractory IBS. Mean Zung score 38 (range 23-48). concurrent medication discontinued. Tertiary referral centre. Sponsored by Eli Lilly (Prozac).	1) Fluoxetine 20mg capsules at bedtime (SSRI selective serotonin reuptake inhibitors); duration: 6 weeks; requency/day: once; amount 20mg (n=19). 2) Placebo capsule at bedtime (placebo); duration: 6 weeks; frequency/day: once (n=21).
Myren 1984; Trial held in Norway; parallel trial; Setting: mixed.	Inclusion & Exclusion criteria: Excluded: organic disease. Type of IBS: Unclear. IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated. Age (range): mean 36.5 yrs (16-75). Gender (M/F): 212: 216. Co-morbidities: none gastroenterologists and GPs conducted study. 23-36% of patients had concurrent medication during the trial; 45-61% were not taking other drugs before the study started.	1) Trimipramine (tricyclic (sedative)); duration: 6 weeks; frequency/day: 1; amount 50 mg (n=92). 2) Placebo (placebo); duration: 6 weeks; frequency/day: unclear; amount (n=75). 3) Trimipramine 10 mg, twice a day (10mg in the morning, 40 mg in the evening). 4) Trimipramine 35 mg, once a day (at bedtime). 5) Trimipramine 10 mg, 3 times a day.

Study	*Participants*	*Interventions*
Myren 1982; Trial held in Norway; parallel trial; Setting: secondary care.	Inclusion & Exclusion criteria: Included: 'patients' with chronic symptoms lasting for several months. Excluded: organic disease. Type of IBS: Unclear. IBS definition: Authors' def. Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated. Age (range): 38 (range not given) SD 13. Gender (M/F): 28:33. Co-morbidities: Double blind procedure described but randomisation not mentioned. Mean score at baseline on 10cm VAS depression scale and on anxiety scale was about 2. Previous treatment not stated.	1) Trimipramine (tricyclic (sedative)); duration: 4 Weeks; frequency/day: 1; amount 25 mg (n= 30). 2) Placebo (placebo); duration: 4 weeks; frequency/day: 1 (n= 31).
Rajagopalan 1998; Trial held in India; parallel trial; Setting: secondary care.	Inclusion & Exclusion criteria: Included: Symptoms persist 1 year or more, for 3 days/ week or more. Literate; aged 21-65y. Excluded: major medical or psychiatric illnesses, previous antidepressant medication. Type of IBS: Unclear. IBS definition: Rome II. Severity of IBS symptoms: Not stated; Bloating/flatus: Some patients; Post infective: not stated. Age (range): mean 35y. Gender (M/F): 11:11. Co-morbidities: none. Mean duration: 4 and 5 years. No major medical or psychiatric illnesses. No concurrent medication.	1) Amitriptyline initially 1 tablet (25 mg) (tricyclic (sedative)); duration: 12 weeks; frequency/day: 3; amount up to 75 mg (tapered up to end of 2nd week) (n=20). 2) Placebo (placebo); duration: 12 weeks;frequency/day: 3 (n=20).

Study	*Participants*	*Interventions*
Steinhart 1981; Trial held in US; crossover; trial; Setting: not stated.	Inclusion & Exclusion criteria: Included: adult patients with spastic colon syndrome with moderate to severe symptoms (2 episodes or more per day) for at least 6 months. Excluded: cases with known allergy, systemic disease of any kind, any gastrointestinal disease. Type of IBS: Mixed. IBS definition: Authors' def. Severity of IBS symptoms: severe; Bloating/flatus: Some patients; Post infective: not stated. Age (range): mean 41 (21 to 65). Gender (M/F): 3:11; Co-morbidities: 57% had depression and 79% anxiety. Mean duration of IBS was 5.07 years. No concurrent medication. All patients had received antispasmodics previously.	1) Amitriptyline (tricyclic (sedative)); duration: 4 weeks; frequency/day: 1; amount 50 mg (n=14). 2) Placebo (placebo); duration: 4 weeks; frequency/day: 1 (n=14).
Steinhart 1981; Trial held in US; crossover; trial; Setting: not stated.	Inclusion & Exclusion criteria: Included: adult patients with spastic colon syndrome with moderate to severe symptoms (2 episodes or more per day) for at least 6 months. Excluded: cases with known allergy, systemic disease of any kind, any gastrointestinal disease. Type of IBS: Mixed. IBS definition: Authors' def. Severity of IBS symptoms: severe; Bloating/flatus: Some patients; Post infective: not stated. Age (range): mean 41 (21 to 65). Gender (M/F): 3:11; Co-morbidities: 57% had depression and 79% anxiety. Mean duration of IBS was 5.07 years. No concurrent medication. All patients had received antispasmodics previously.	1) Amitriptyline (tricyclic (sedative)); duration: 4 weeks; frequency/day: 1; amount 50 mg (n=14). 2) Placebo (placebo); duration: 4 weeks; frequency/day: 1 (n=14).

Study	*Participants*	*Interventions*
Tabas 2004; Trial held in US; parallel trial; Setting: mixed.	Inclusion & Exclusion criteria: Included: failed high fibre diet. Excluded: major medical or psychiatric illnesses; breastfeeding/ pregnancy; medication; allergy to paroxetine. Type of IBS: Mixed. IBS definition: Rome I. Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: Not stated. Age (range): 18-65yrs mean 45. Gender (M/F): 60:140. Co-morbidities: 27/81 (33%) had some depression (BDI score >10) Patients recruited through physician referrals and newspaper adverts. Non-responders to high fibre diet. No industry funding apart from supply of drugs. 2.8 to 3.6 times more diarrhoea than constipation.	1) Paroxetine (10 mg/ day initially) and high fibre diet >25g per day (SSRI selective serotonin reuptake inhibitors); duration: 12 weeks; frequency/day: up to 4; amount up to 40 mg (23% 10mg; 43% 20mg; 33% 40mg) (n=38). 2) Placebo (I pill initially) and high fibre diet >25g per day (placebo); duration: 12 weeks; frequency/day: up to 4 (n= 43).
Tanum and Malt 1996; Trial held in Norway; parallel trial; Setting: secondary care.	Inclusion & Exclusion criteria: Included: patient aged 18-70 diagnosed with functional gastrointestinal disorder, with pain for at least 12 months with symptoms present for majority of the week. Excluded: pregnant/ nursing women; psychopathology (Axis I); initial placebo responders. Type of IBS: Unclear. IBS definition: Manning. Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated. Age (range): mean 37 (23-63). Gender (M/F): 15: 32; Co-morbidities: none60% IBS, 40% NUD (non-ulcer dyspepsia). Duration of disorder 7.1 and 9.9 years. Schizophrenia, anxiety and depression excluded. Placebo responders also excluded.	1) Tricyclic related antidepressant – miancerin hydrochloride 30 mg (1 tbl) initially (tricyclic and related antidepressants); duration: 7 weeks; frequency/day: 4; amount up to 120 mg for weeks 2-7, then tapered week 8 (n=25). 2) Placebo (placebo); duration: 7 weeks; frequency/day: 4 (n=22).

Study	*Participants*	*Interventions*
Tripathi 1983; Trial held in India; parallel trial; Setting: secondary care.	Inclusion & Exclusion criteria: Included: outpatients with vague abdominal pain, flatulence, loose motions and without any weight loss for the past 3 yrs, and not showing improvements with intestinal antiseptics. Excluded: pregnant women; jaundice; those with organic illness. Type of IBS: Unclear. IBS definition: Authors' def. Severity of IBS symptoms: Not stated; Bloating/flatus: Some patients; Post infective: not stated. Age (range): 37 (13-60). Gender (M/F): not stated. Co-morbidities: Mainly anxiety (MMPI score) in all patients. Inpatients in medical ward for 5 weeks. No other medication during the trial. Mean score at baseline on 10cm VAS depression scale and on anxiety scale was about 1.6	1) Trimipramine (tricyclic (sedative)); duration: 5 weeks; frequency/day: 3; amount 10 mg (n=25). 2) Placebo (placebo); duration: 5 weeks; frequency/day: 3 (n=25).
Vij 1991; Trial held in India; parallel trial; Setting: secondary care.	Inclusion & Exclusion criteria: Inclusion: IBS symptoms >3 months. Exclusions: organic disease. Type of IBS: Mixed. IBS definition: Symptoms described. Severity of IBS symptoms: mixed; Bloating/flatus: Not stated; Post infective: not stated. Age (range): 32yrs. Gender (M/F): 33/11; Co-morbidities: 57% psychiatric comorbidities IBS-D in 34; IBS-C in 10; IBS-A in 6 patients. 25/44 (57%) patients assessed to be 'probable psychiatric cases' using the GHQ. Previous treatment not stated.	1) Doxepin 75mg (tricyclic); duration: 6 weeks; frequency/day: once daily; amount 75mg per day (n=25). 2) Identical looking capsule (placebo); duration: 6 weeks; frequency/day: once daily (n=25).

C11: ADVERSE EFFECTS

Characteristics of the included studies of this review are detailed in the individual review.

C12: RELAXATION

Study	*Participants*	*Interventions*
Blanchard 1993; Trial held in USA; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Had IBS Type of IBS: Mixed; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Some patients; Post infective: not stated Age (range): 22-64 yr; Gender (M/F): 4:12; Comorbidities: 9/16 (56%) had AXIS I disorder	1) Progressive muscle relaxation (relaxation); duration: 8 weeks; frequency/day: 2 sessions/wk 1st 2 weeks then weekly; amount (n=14) 2) Symptom monitoring (symptom monitoring); duration: 8 weeks; frequency/day: amount (n=9)
Forbes 2000; Trial held in UK; Parallel; trial; Setting: secondary care	Inclusion and Exclusion criteria: IBS>6 months; failed dietary/drug therapy Type of IBS: Mixed; IBS definition: Rome I; Severity of IBS symptoms: Not stated; bloating/flatus: Some patients; Post infective: not stated Age (range): Median 37yr (19-71); Gender (M/F): 15:37; Comorbidities: not statedContinuation of pre-existing therapy for IBS was permitted (including antispasmodics and antidepressants)	1) Gut-directed hypnotherapy (hypnotherapy); duration: 12 weeks; frequency/day: every 2 weeks; amount total 6 sessions (n=25) 2) Audiotape including info, reducing stress, structured relaxation (relaxation); duration: 12 weeks; frequency/day: once daily; amount 30 minutes (n=27)
Keefer 2001; Trial held in USA; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: over 17yr, gastrointestinal distress at least 3 days per week; excluded if bipolar I or II, schizophrenia, other psychoses, actively suicidal. Type of IBS: Unclear; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Some patients; Post infective: not stated Age (range): mean 51.5 yr, range 34-76yr; Gender (M/F): 4:9; Comorbidities: 77% had an Axis I diagnosis	1) Relaxation Response Meditation (relaxation); duration: 6 weeks; frequency/day: once weekly; amount (n=8) 2) Symptom monitoring (symptom monitoring); duration: 6 weeks; frequency/day: amount (n=8)

C13: BIOFEEDBACK

Study	*Participants*	*Interventions*
Blanchard 1992a; Trial held in USA; ----; trial; Setting: secondary care	Inclusion & Exclusion criteria: Type of IBS: Mixed; IBS definition: Authors' def; Severity of IBS symptoms: mixed; Bloating/flatus: All patients; Post infective: not stated Age (range): 42 (23-76)yrs; Gender (M/F): 7:23; Comorbidities: none Weight, Length of time since presentation, duration of symptoms, ethnicity, socio-economic group	1) Multi-component biofeedback 12 sessions x 1hour over 8 weeks (Individual multi-component biofeedback); duration: 2xweek for 4 weeks, 1xweek for 4 weeks; frequency/day: 2xweek for 4 weeks, 1xweek for 4 weeks; amount (n=10) 2) Pseudo meditation and alpha suppression biofeedback (Attention placebo); duration: 2xweek for 4 weeks, 1xweek for 4 weeks; frequency/day: ; amount (n=10) Symptom monitoring control group n=10
Blanchard 1992b; Trial held in USA; ----; trial; Setting: secondary care	Inclusion & Exclusion criteria: Type of IBS: Mixed; IBS definition: Authors' def; Severity of IBS symptoms: mixed; Bloating/flatus: All patients; Post infective: not stated Age (range): 42 (23-76)yrs; Gender (M/F): 7:23; Comorbidities: none Weight, Length of time since presentation, duration of symptoms, ethnicity, socio-economic group	1) Multi-component biofeedback 12 sessions x 1hour over 8 weeks (Individual multi-component Biofeedback); duration: 2xweek for 4 weeks, 1xweek for 4 weeks; frequency/day: 2xweek for 4 weeks, 1xweek for 4 weeks; amount (n=31) 2) Pseudo meditation and alpha suppression biofeedback (Attention placebo); duration: 2xweek for 4 weeks, 1xweek for 4 weeks; frequency/day: amount (n=30) 3) Symptom monitoring control group (n=31)
Leahy 1997Trial held in UK crossover trial Setting: secondary care	Inclusion & Exclusion criteria: Inclusion: previous non response to medical treatment Type of IBS: Mixed; IBS definition: Rome I; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): not stated; Gender (M/F): not stated; Comorbidities: not stated	1) 4 x 30 minute sessions of biofeedback (single biofeedback); duration: 4 x 30 mins; frequency/day: weekly; amount (n=30) 2) 4 x 30 minutes counselling (Attention placebo); duration: 4 x 30 mins; frequency/day: ; amount weekly (n=30)

Study	*Participants*	*Interventions*
Neff & Blanchard 1987; Trial held in USA; ----; trial; Setting: Secondary care	Inclusion & Exclusion criteria: not stated Type of IBS: Mixed; IBS definition: 'Had IBS'; Severity of IBS symptoms: mixed; Bloating/flatus: Some patients; Post infective: not stated Age (range): Gender (M/F): ; Comorbidities: GI symptom diaries completed for 12 weeks (2 weeks pre intervention , 8 weeks intervention, 2 weeks post intervention 12 month Follow up Study=Schwarz et al 1986 24month follow up study=Neff 1988	1) Multicomponent biofeedback (provision of educational information, progressive relaxation therapy, thermal biofeedback, stress coping strategy) (Individual multicomponent biofeedback); duration: 12x1hour sessions in 8 weeks; frequency/day: ; amount (n=10) 2) Completed GI symptom diary for 12 weeks (Symptom monitoring); duration: ; frequency/day: amount (n=9) management

C14: PSYCHOTHERAPY

Study	*Participants*	*Interventions*
Creed 2003; Trial held in UK; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: IBS>6months; failure to respond to usual medical treatment; severe abdominal pain (>59 on VAS); no contraindications; age 18-65yr Type of IBS: Mixed; IBS definition: Rome I; Severity of IBS symptoms: severe; Bloating/flatus: Not stated; Post infective: not stated Age (range): Mean around 40yr; Gender (M/F): 52:205; Comorbidities: 47% had psychiatric diagnosis (mainly anxiety or depression)29% diarrhoea-predominant IBS; 23% constipation-predominant; 48% general.	1) Paroxetine (SSRI) (medical treatment); duration: 3 months; frequency/day: once; amount 20mg daily (n=86) 2) Routine care (usual care); duration: 3 months; (n=86) 3) Individual psychodynamic interpersonal therapy (n=85)
Guthrie 1991; Trial held in UK; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: IBS > 1 yr; symptoms not improved with medical treatment (bulking agents, +/or antispasmodics) over 6 months. Excluded if severe depression requiring medication or could not speak English Type of IBS: Unclear; IBS definition: 'Had IBS'; Severity of IBS symptoms: moderate; Bloating/flatus: Not stated; Post infective: not stated Age (range): median around 48yr (20-75yr); Gender (M/F): 25:77; Comorbidities: 30% major depression + 18% anxiety states. Medical treatment (bulking agents, +/or antispasmodics) continued unchanged throughout trial. Psychotherapy over 7 sessions (2+hours); relaxation tape to use at home. Median around 4 yr symptoms (range 1-20yr). Median severity 5 (range 2-8) on scale 0-9.	1) Dynamic psychotherapy, relaxation + medical treatment (psychotherapy); duration: 3 months; frequency/day: ; amount psychotherapy 7 sessions (2+hrs); home relaxation (n=53) 2) Medical treatment; duration: 3 months (n=49)

Study	*Participants*	*Interventions*
Svedlund 1983; Trial held in Sweden; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Abdo pain and/or change in bowel habit (constipation, diarrhoea or both) Type of IBS: Unclear; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): mean around 34 yr (17-59); Gender (M/F): 31:70; Comorbidities: not stated Conventional medical treatment = bulk-forming agents, anticholinergic drugs, antacids and minor tranquillisers. Psychotherapy modified maladaptive behaviour, found new solutions, focused on coping with stress & emotional probs	1) Dynamically orientated individual psychotherapy + medical treatment (psychotherapy); duration: 3 months; amount 10 sessions over 3 months (n=50) 2) Conventional medical treatment (medical treatment) (n=51)

C15: COGNITIVE BEHAVIOUR THERAPY

Study	*Participants*	*Interventions*
Bennett 1985; Trial held in UK; parallel; trial; Setting: not stated	Inclusion & Exclusion criteria: Newly diagnosed IBS patients who had not responded to reassurance or simple symptomatic treatment Type of IBS: Mixed; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; bloating/flatus: Not stated; Post infective: not stated Age (range): Mean 37.2 yr; Gender (M/F): 10:23; Comorbidities: not stated Short report; little detail (e.g. unclear number of patients in each group; no primary data given, only p values for ANOVAs). 12 in each group completed study (72%). 6 week no treatment period.	1) Stress management, cognitive therapy and contingency management (CBT); duration: 8 weeks; frequency/day: weekly; amount 1 hour (n=12) 2) Medical treatment (motival 2 daily, mebeverine 135mg tds & fybogel 1 sachet daily) (medical treatment); duration: 8 weeks; frequency/day: amount (n=12)
Bergeron 1983; Trial held in USA; parallel; trial; Setting: not stated	Inclusion & Exclusion criteria: not stated Type of IBS: Unclear; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): not stated; Gender (M/F): not stated; Comorbidities: not statedAbstract only - no data	1) Behavioural training, i.e. Cognitive stress management, progressive muscle relaxation and biofeedback (CBT); duration: 6 weeks; frequency/day: ; amount (n=12) 2) Relaxation (relaxation); duration: 6 weeks; frequency/day: amount (n=13)Biofeedback (n=12)
Blanchard 1993; Trial held in USA; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Diagnosed with IBS by a physician Type of IBS: Mixed; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): Mean around 40 yr (22-64yr); Gender (M/F): 4:12; Comorbidities: not statedNo information on concurrent medical treatments for IBS. 50-73% Axis I diagnosis.	1) Relaxation training - progressive muscle relaxation 10 sessions (relaxation); duration: 8 weeks; frequency/day: ; amount (n=8) 2) Symptom monitoring (symptom monitoring); duration: 8 weeks; frequency/day: ; amount (n= 8)

Study	*Participants*	*Interventions*
Bogalo 2006; Trial held in parallel; trial; Setting: not stated	Inclusion & Exclusion criteria: Excluded if other medical conditions (e.g. coeliac/Crohn's disease) or serious psychiatric disorder Type of IBS: Unclear; IBS definition: Rome II; Severity of IBS symptoms: Not stated; bloating/flatus: Not stated; Post infective: not stated Age (range): 18-80 yr; Gender (M/F): not stated; Comorbidities: not stated This paper only reports outcomes for ntervention group not controls	1) Self-help CBT based intervention (CBT); duration: 7 weeks; frequency/day: ; amount (n=) 2) Control condition not described (placebo); duration: frequency/day: ; amount (n=)
Boyce 2003; Trial held in Australia; parallel; trial; Setting: mixed	Inclusion & Exclusion criteria: Excluded if major current medical or psychotic illness, alcoholism, psychological treatment, use of antidepressants or antipsychotics or medication that could affect bowel function Type of IBS: unclear; IBS definition: Rome I; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): mean 42 yr; Gender (M/F): 20:85; Comorbidities: no comorbid psychiatric diagnosis	1) Relaxation (relaxation); duration: 8 weeks; frequency/day: ; amount 30 minute sessions (n=36) 2) Routine medical care (bulking agent) medical treatment); duration: 8 weeks; frequency/day: amount (n= 34)CBT (n=35)
Corney 1991; Trial held in UK; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Abdo pain & altered bowel habit >6 months; patients unable to attend for weekly therapy excluded Type of IBS: Mixed; IBS definition: 'Had IBS'; Severity of IBS symptoms: mixed; Bloating/flatus: Some patients; Post infective: not stated Age (range): mean 30 yr (19-73yr); Gender (M/F): 11:31; Comorbidities: 25/42 'cases' on GHQOver 50% of the patients had 1 or more social problems. Axis I diagnosis and concurrent medication not stated. laxatives, dietary advice (medical treatment); duration: ; frequency/day: ; amount (n=20)	1) Behavioural psychotherapy (nurse behaviour therapist): general information about complaint; any mistaken ideas elicited, discussed & modified. 2) Bowel retraining techniques; encouraged to refrain from toilet in response to pain. Pain management advice. (CBT); duration: 1 h times 6-15; frequency/day: ; amount Nurse behaviour therapist 6-15 one-hour sessions (n=22) 3) Conventional medical treatment (1-4 appointments in outpatients); explanation, reassurance, antispasmodics,

Study	*Participants*	*Interventions*
Drossman 2003; Trial held in USA; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Moderate (68%) to severe (29%) symptoms of FBD (abdo pain with or without altered bowel habit at least 2 days/week for at least 6 months); 78% IBD Type of IBS: Unclear; IBS definition: 'Had IBS'; Severity of IBS symptoms: mixed; Bloating/flatus: Not stated; Post infective: not stated Age (range): mean 38.6yr (SD 12yr); Gender (M/F): 100% female; Comorbidities: Almost half had a history of physical or sexual abuseCBT vs. attention control and desipramine vs. placebo in separate randomisations and analyses. 1 analysis of CBT vs desipramine and attention control vs. placebo	1) CBT (CBT); duration: 12 weeks; frequency/day: amount hour-long sessions (n=144) 2) Placebo tablets for desipramine (placebo); duration: 12 weeks; frequency/day: ; amount (n=72)Attention control, desipramine
Fernandez 1998; Trial held in Spain; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Subjects requesting medical assistance in the Digestive System Service of Cabuenes Hospital, Asturias, Spain with IBS >1yr with characteristics of a bad prognosis Type of IBS: Unclear; IBS definition: Manning; Severity of IBS symptoms: Not stated; bloating/flatus: Not stated; Post infective: not stated Age (range): mean 44 yr; Gender (M/F): 31:59; Comorbidities: 49% had psychiatric treatment12 stress management (progressive muscle relaxation) sessions; 33 patients dropped out (16 from placebo group; other groups 6 for stress management; 7 for contingency management and 4 medical treatment)	1) Stress management (stress management); duration: 12 weeks; frequency/day: weekly; amount 10 sessions of 1 h each (n=23) 2) Placebo condition: visualisation of bowel function exercises; prompting of self regulation (placebo); duration: 12 weeks; frequency/day: ; amount 10 sessions (n=23) 3) Contingency management; conventional medical treatment

Study	*Participants*	*Interventions*
Gong 2002; Trial held in China; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: not stated Type of IBS: Unclear; IBS definition: Rome I; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): 20-55yr; Gender (M/F): 32:38; Comorbidities: not stated. Abstract only. Selective gastrointestinal calcium antagonist given to both groups. Other IBS medication and Axis I diagnosis not stated.	1) Psychotherapy, including explanation of disease; cognitive therapy to recognise causes of disease and correct wrong views; and suggestion. (psychotherapy); duration: 30-60mins; frequency/day: weekly; amount (n=35) 2) No treatment (no treatment); duration: frequency/day:; amount (n=35)
Greene 1994; Trial held in USA; parallel; trial; Setting: not stated	Inclusion & Exclusion criteria: Abdo pain/tenderness; altered bowel habit; exclusion of physical disease; duration 3 months with some syptoms every week; excluded if schizophrenia, bipolar disorder or organic mental disorder or cognitive therapy in last yr. Type of IBS: Unclear; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): mean 38.2yr (18-70yr); Gender (M/F): 5:15; Comorbidities: not statedPatients had IBS for average 14.5y (SD 13.4). They volunteered for non-drug treatment. No information on concurrent drugs. 90% had Axis I diagnosis.	1) CBT individual: explained IBS, increased awareness of associations between stressors, thoughts & symptoms, taught pts to identify & modify appraisals & interpretations & challenged underlying psychological mechanisms, fundamental beliefs & assumptions (CBT); duration: 8 weeks; frequency/day: ; amount 10 sessions x 1 hr (n=10) 2) Symptom monitoring (symptom monitoring); duration: 8 weeks; frequency/day: ; amount (n=10)
Heymann-Monnikes 2000; Trial held in Germany; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Excluded if any mental disorder Type of IBS: Unclear; IBS definition: Rome I; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): 19-60 yr (mean around 38 yr); Gender (M/F): 3:21; Comorbidities: not stated 9/12 in BT group and 11/12 in symptom monitoring had concurrent medication for IBS. Tertiary referral patients. No patients had Axis I diagnosis.	1) Multicomponent behavioural therapy + medical treatment.BT is extensive behavioural therapy that included informational needs, progressive muscle relaxation, cognitive coping strategies, problem solving and assertiveness training. (CBT); duration: 10 weeks; trequency/day: ; amount (n=12) 2) Medical treatment only (symptom orientated and optimised) (medical treatment); duration: 10 weeks; frequency/day: ; amount (n=12)

Study	*Participants*	*Interventions*
Kennedy 2005; Trial held in UK; parallel; trial; Setting: primary care	Inclusion & Exclusion criteria: Most pts moderate (38%) or severe (52%) IBS; 85% satisfied Rome I criteria; aged 16-50yr Type of IBS: Unclear; IBS definition: Rome I; Severity of IBS symptoms: mixed; Bloating/flatus: Not stated; Post infective: not stated Age (range): 33.8yr (SD8.6); Gender (M/F): 42:193; Comorbidities: 43% had consulted dr with psychological problemUpper age limit of 51 years. No effort was made to interfere with normal primary care of IBS. Mebeverine dose twice that of BNF. Axis I not stated, but 43% had consulted with a psychological problem.	1) CBT nurse delivered (50 min per week) plus mebeverine. CBT: education about the nature of IBS, behavioural techniques to improve bowel habits, cognitive techniques, and techniques to reduce symptom focusing, manage stress, and prevent relapse. (CBT); duration: 6 weeks; frequency/day: weekly CBT + thrice daily mebeverine; amount 825mg mebeverine (n=72) 2) Mebeverine (smooth muscle relaxant); duration: 6 weeks; frequency/day: thrice daily mebeverine; amount 825mg (n=77)
Lynch 1989; Trial held in Canada; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Referred from gastroenterology clinics; diagnosed using Latimer's criteria (change in bowel habit >6 months). 1 patient excluded because of major depression. Type of IBS: Mixed; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): mean around 40yr; Gender (M/F): 7:14; Comorbidities: not stated.Duration of disease around 9 yr. 6 dropped out (not stated which group) & were replaced to achieve 21 in all. 6/21 patients used psychotropic drugs and 10/21 analgesics at recruitment; 6 used Metamucil or similar bulking agents.	1) Cognitive-behavioural stress management, including relaxation, control of stress-producing cognitions, assertion, role play, homework (2-hour sessions). (CBT); duration: 8 weeks; frequency/day: ; amount (n=11) 2) Waiting list control (waiting list control); duration: 8 weeks; frequency/day: amount (n=10)

Study	*Participants*	*Interventions*
Payne 1995; Trial held in USA; parallel; trial; Setting: not stated	Inclusion & Exclusion criteria: Had IBS Type of IBS: Mixed; IBS definition: Rome I; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): mean around 40yr (22-70); Gender (M/F): 5:29; Comorbidities: 29/34 had an Axis I disorder1 pt dropped out of CT and was replaced. 80-92% of patients had an axis I diagnosis (major depression, schizoaffective disorder, paranoid state). Concurrent medication not stated list control (n=10)	1) Individualised cognitive treatment; increasing pt awareness of association between stressors, thoughts & symptoms; idenitification & modification of cognitive appraisals & interpretations of situations, thoughts & behaviours; changing life script (CBT); duration: 8 weeks; frequency/day: ; amount (n=12) 2) Self help support group – guided discussion on aspects of IBS e.g. stress, diet; 1hr 3) 15 mins/week (support group); duration: 8 weeks; frequency/day: weekly; amount (n=12)3) Waiting
Tkachuk 2003; Trial held in Canada; parallel; trial; Setting: not stated	Inclusion & Exclusion criteria: Refractory IBS Type of IBS: Unclear; IBS definition: Rome I; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): Mean 39.5yr (18-68yr); Gender (M/F): 1:27; Comorbidities: 68% had at least 1 Axis I diagnosis; 79% other comorbidity (e.g. migraine, fibromyalgia, chronic pain)IBS mean 9 yr (range 9 months-45 yr). Patients matched by Axis I presence and IBS type. Participants continued their medication. 68% had Axis I diagnosis.	1) Cognitive behaviour therapy (group) CBT ten 90-minute sessions over 9 weeks in groups of 3-8patients; patient education and goal setting; relaxation training; assertion training (dealing with stress); relapse prevention strategies (coping skills). (CBT); duration: 9 weeks; frequency/day: ; amount (n=14) 2) Home symptom monitoring with weekly telephone contact; offered CBT after trial (symptom monitoring); duration: 9 weeks; frequency/day: ; amount (n= 14)

Study	*Participants*	*Interventions*
Toner 1998; Trial held in Canada; parallel; trial; Setting: not stated	Inclusion & Exclusion criteria: Had IBS Type of IBS: unclear; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): 18-65yr; Gender (M/F): not stated; Comorbidities: not statedLittle info - no primary data. Patients encouraged to refrain from medical treatments for IBS in groups 1 and 2.	1) CBT group therapy (CBT); duration: 12 weeks; frequency/day: ; amount (n=) 2) Psychoeducational group (attention control); duration: 12 weeks; frequency/day: ; amount (n=) 3) Usual medical treatment only
Vollmer 1998; Trial held in USA; parallel; trial; Setting: not stated	Inclusion & Exclusion criteria: IBS Rome 1992 criteria; excluded if inflammatory bowel disease, intestinal parasites, organic pathology, pregnancy, serious mental disorder Type of IBS: Mixed; IBS definition: Rome I; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): Mean 43.6yr; 20-68yr; Gender (M/F): 7:25; Comorbidities: 84% had at least 1 Axis I diagnosisCBT in groups of 3-5 (90 mins); or individually (60 mins) for 10 sessions: increasing awareness of associations between stressors, thoughts & symptoms; identifying & modifying cognitive appraisals of situations & behaviours; changing life script	1) CBT individual (CBT); duration: 8 weeks; frequency/day: ; amount (n=11) 2) Symptom monitoring waiting list control (waiting list control); duration: 8 weeks; frequency/day: ; amount (n=10) CBT group

C16: HYPNOTHERAPY

Study	*Participants*	*Interventions*
Forbes 2000; Trial held in UK; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: IBS>6 months; failure to respond adequately to conventional uses of fibre, antispasmodics and dietary manipulation. Patients who had failed trials of antidepressants were eligible. Type of IBS: Mixed; IBS definition: Rome I; Severity of IBS symptoms: Not stated; Bloating/flatus: Some patients; Post infective: not stated Age (range): Median 37yr (19-71); Gender (M/F): 15:37; Comorbidities: 19/52 patients considered to be psychiatric cases under GHQ. Continuation of pre-existing therapy for IBS was permitted (including antispasmodics & antidepressants).	1) Gut-directed hypnotherapy (hypnotherapy); duration: 12 weeks; frequency: every 2 weeks; amount total 6 sessions (n=25) 2) Audiotape including info on IBS; routes to reducing Stress, structured relaxation + 2 consultations (relaxation); duration: 12 weeks; frequency: once daily; amount 30 minutes (n=27). Audiotape from same therapist as delivered hypnotherapy.
Galovski 1998; Trial held in USA; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: At least 3 days GI distress/week for at least 6 months; Biplor disorder with current manic state excluded Type of IBS: Mixed; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Some patients; Post infective: not stated Age (range): mean 38.8 yr (23-58yr); Gender (M/F): 2:10; Comorbidities: 67% axis I diagnosisduration of symptoms mean 6 yr (range 0.5-17yr)	1) Gut-directed hypnotherapy (hypnotherapy); duration: 12 weeks; frequency: weekly; amount half- to one-hour sessions (n=6) 2) Symptom monitoring waiting list control (symptom monitoring); duration: 6 weeks (n=6)

Study	*Participants*	*Interventions*
Harvey 1989; Trial held in UK; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: refractory IBS; none had responded to standard medical therapy with bulking agents/antispasmodic drugs Type of IBS: Unclear; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): not stated; Gender (M/F): 9:27; Comorbidities: 8/22 had psychological problems (GHQ≥5)	1) Gut-direct hypnotherapy (group) (hypnotherapy); duration: 7 weeks; amount 4x 40-minute sessions (n=18) 2) Gut-direct hypnotherapy (individual) (hypnotherapy); duration: 7 weeks; amount 4x 40-minute session s (n=18)
Palsson 2002; Trial held in USA; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: IBS at least 1 year; pain at least weekly for 1 month; excluded if other GI disorder or abdominal surgery (excl appendectomy, hysterectomy, negative laparoscopy), psychotropic drugs or IBS drugs Type of IBS: Unclear; IBS definition: Rome I; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): Mean age 39.1yr; Gender (M/F): 9:15 completed; Comorbidities: not stated 6 dropped out after enrolment (all in waiting list group). All had symptoms refractory to standard medical management.	1) Hypnotherapy (individual) (hypnotherapy); duration: 12 weeks; amount 7x 45- minute sessions (n=15) 2) Waiting list control group (waiting list control); duration: 12 weeks (n=15)

Study	*Participants*	*Interventions*
Roberts 2006; Trial held in UK; parallel; trial; Setting: primary care	Inclusion & Exclusion criteria: IBS>6weeks; failed conventional management; excluded if atypical symptoms (e.g. blood in stools) Type of IBS: Unclear; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): Mean age 41.6yr (18-65yr); Gender (M/F): 12:69; Comorbidities: not stated. Study underpowered.	1) Gut-directed hypnotherapy (hypnotherapy); duration: probably 5 weeks; frequency/day: weekly; amount 5 half-hour sessions (n=40) 2) Usual management only (usual management); (n=41)
Whorwell 1984; Trial held in UK; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Severe refractory IBS; had not responded over at least 1 yr Type of IBS: Unclear; IBS definition: Authors' def; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): 24- 53yr; Gender (M/F): 4:26; Comorbidities: not stated Short report; little detail; no SDs given	1) Gut-directed hypnotherapy (hypnotherapy); duration: 3 months; amount 7x half-hour sessions (n=15) 2) Supportive listening (“psychotherapy”); duration: 3 months; amount 7x half-hour sessions (n=15)

C17: REFLEXOLOGY

Study	*Participants*	*Interventions*
Tovey 2002; Trial held in UK; parallel; trial; Setting: primary care	Inclusion & Exclusion criteria: Inclusion: currently under Primary care physicial following referral to gastroenterologist. Exclusions: other causes symptoms rather than IBS and previous use of reflexology. Type of IBS: Unclear; IBS definition: Rome	1) Reflexology (reflexology); duration: 30min; frequency/day: 6 sessions over 8 weeks; amount (n=19) 2) Non-reflexology foot massage (did not apply pressure to key points on feet) (placebo); duration: 30 min; frequency/day: 6 sessions over 8 weeks; am

C18: ACUPUNCTURE

Study	*Participants*	*Interventions*
Conboy 2006; Trial held in UK; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Exclusion: previous acupuncture, pregnancy, laxative abuse, score of >150 on IBSSS, other GI disease, Type of IBS: Mixed; IBS Definition: Rome II; Severity of IBS symptoms: mixed; Bloating/flatus: Some patients; Post infective: not stated Age (range): ; Gender (M/F): ; Comorbidities: none	1) 60 min in depth interview + 6 verum acupuncture sessions (Chinese Acupuncture); duration: 3 weeks; frequency/day: 6 x 20 min; amount (n=) 2) 60 min interview + 6 sham acupuncture (placebo); duration: 3 weeks; frequency/day: amount 6 x 20 min (n=); Waiting list control - 6 weeks, no treatment
Fireman 2001; Trial held in Israel; crossover; trial; Setting: secondary care	Inclusion & Exclusion criteria: Type of IBS: Mixed; IBS definition: Rome I; Severity of IBS symptoms: mixed; Bloating/flatus: Some patients; Post infective: not stated Age (range): 20 - 75 (45 yrs); Gender (M/F): 12:13; Comorbidities: none	1) 2 x 30 min sessions (Li4) over 4 weeks (Chinese Acupuncture); duration: 7 weeks; frequency/day: 1 x fortnight; amount 30 mins 1 x fortnight (n=25) 2) 2 x 30 min sessions (Bl60) sham acupuncture on inappropriate point (placebo); duration: 7 weeks; frequency/day: 30 mins 1 x fortnight; amount 1 x fortnight (n=25
Forbes 2005; Trial held in UK; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Exclusions: other physical disease, Type of IBS: Mixed; IBS definition: Rome I; Severity of IBS symptoms: Not stated; Bloating/flatus: Some patients; Post infective: not stated Age (range): 17-79 (44yrs); Gender (M/F): 21:39; Comorbidities: nonetongue & pulse diagnosis made bt diagnosing acupuncturist.	1) 8-16 needles inserted at 4-8 specified acupuncture points for 25 minutes (Chinese Acupuncture); duration: 10 weeks; frequency/day: 1 x week x 10 weeks; amount 1 x week (n= 27) 2) 1x weekly treatment for 10 weeks (placebo); duration: 10 weeks; frequency/day: 1 x week; amount needles inserted at non acupuncture points (n=32)

Study	*Participants*	*Interventions*
Liu 1997; Trial held in China; parallel; trial; Setting: not stated	Inclusion & Exclusion criteria: Exclusion: organic disease Type of IBS: Mixed; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): 16-64yrs; Gender (M/F): 89:61; Comorbidities: not stated Weight, Length of time since presentation, duration of symptoms, ethnicity, socio-economic group	1) Acupuncture(3-4 points) + psychotherapy (Chinese Acupuncture); duration: 3-21 weeks; frequency/day: 3 x week; amount Psychotherapy 1-2 sessions per week prior to acupuncture (n=50) 2) Acupuncture alone (Acupuncture); duration: not stated; frequency/day: not stated; amount not stated (n=50) Control B-Psychotherapy only
Lowe 2000; Trial held in Canada; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Type of IBS: Mixed; IBS definition: Rome I; Severity of IBS symptoms: mixed; Bloating/flatus: Not stated; Post infective: not stated Age (range): 18-73 yrs; Gender (M/F): 8:32; Comorbidities: none	1) Insertion of needles at 9 acupuncture points for 20mins (Chinese Acupuncture); duration: 4 weeks; frequency/day: 2 x twice week; amount (n=28) 2) Tapping blunt needle on same acupuncture points (placebo); duration: 4 weeks; frequency/day: ; amount 2 x week (n=22)
Schneider 2006; Trial held in Germany; parallel; trial; Setting: secondary care	Inclusion & Exclusion criteria: Exclusion: acupuncture in last 3 months, concomitant medication with effect on gut. Type of IBS: Mixed; IBS definition: Rome II; Severity of IBS symptoms: mixed; Bloating/flatus: All patients; Post infective: not stated Age (range): (47yrs); Gender (M/F): 1:42; Comorbidities: none	1) Acupuncture on 8 points (L3, St36, Sp6, C12, St21, St25, H7, Du Mai 20) (Chinese Acupuncture); duration: 5 weeks; frequency/day: 2 x week; amount 10 sessions (5 x 2 weekly) (n= 22) 2) Sham acupuncture with Streitberger needle at non acupuncture points (placebo); duration: 5 weeks; frequency/day: 10 sessions (5 x 2 weekly); amount 2 x week (n=21)

C19: HERBAL MEDICINE

Study	*Participants*	*Interventions*
Bensoussan et al, 1998; Trial held in australia; parallel trial; Setting: not stated	Inclusion & Exclusion criteria: Included: age 18-75, IBS by Rome Criteria, at least 3 months of IBS symptoms. Excluded: breast feeding, pregnancy, medication, alcoholism, allergies, psychiatric illness, lactose intolerance, celiac disease, diabetes, cancers, ulcers. Type of IBS: Mixed; IBS definition: Authors' def; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): 47 yrs (no range given); Gender (M/F): 64:52; Comorbidities: IBS definition was 'Rome criteria', but not stated I, II or III. Setting not stated, but could be 'primary care'. Methods states many outcome measures	1) Standard Chinese herbal preparation, Mei Yu Imports, Sydney (see paper for list of names of 20 herbs and their concentration) (compound Chinese herbal preparation); duration: 16 weeks; frequency/day: 3; amount 15 capsules (5 capsules 3 times daily) (n=43) 2) Placebo "designed to taste, smell and look similar to Chinese herb formula" (placebo); duration: 16 weeks; frequency/day: 3; amount 15 capsules (n= 35) group C: individualised chinese herbal therapy. N= 38 Formula tailored to individual patient (irrespective of diagnosis), modified at different stages of illness. Dose: 5 capsules 3 times daily.
Brinkhaus et al, 2005; Trial held in Germany; parallel; trial; Setting: not stated	Inclusion & Exclusion criteria: Included:clinical diagnosis of IBS, aged 18-70, with certain IBS symptoms. Excluded: organic disease, allergies, cancer, coeliac disease, diabetes, hypo(er)thyrioidism, serious diseases, alcohol/drug abuse, psychiatric illness, pregnancy/breastfeeding. Type of IBS: Mixed; IBS definition: Authors' def; Severity of IBS symptoms: severe; Bloating/flatus: Not stated; Post infective: not stated Age (range): 48 (no range); Gender (M/F): 39:67; comorbidities: Setting unclear. Mean duration of symptoms= 7 yrs.	1) Curcuma xanthorizza tablets containing 20 mg spray dried extract of the herb (single non-chinese herbal preparation); duration: 18 weeks; frequency/day: 3; amount 60 mg (n=24) 2) Placebo tablets (placebo); duration: 18 weeks; frequency/day: 3; amount 6 tablets (n=59) C; fumitory group, Fumaria Officinalis (1 tabled containing 250mg of an aqueous, spray dried extract of the herb. Including >=3.75 mg alkaloid. N=24. For 18 weeks, 2 tablets 3 times daily 1500 mg/day.

Study	*Participants*	*Interventions*
Leung et al, 2006; Trial held in China; parallel trial; Setting: not stated	Inclusion & Exclusion criteria: Included: IBS patients (aged 18-75) based on Rome II, with diarrhoea predominant symptoms (diarrhoea at least 75% of the time) with TCM syndrome. Excluded:constipation/ alternating IBS type, organic/systemic diseases, preganat/lactating women. Type of IBS: Diarrhoea; IBS definition: Rome II; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): 45.4 yrs SD 11.9 yrs; Gender (M/F): 57:62; Comorbidities: Setting not stated, but could be 'primary'. About half of the cases had IBS durations between 1 and 5 yrs. Dose of TCM	1) Herbal TCM Traditional Chinese Medicine of 'Tong Xie Yao Fang composition (see paper for list of names of 11 herbs and their concentration) (compound chinese herbal preparation); duration: 8 weeks; frequency/day: 2; amount see paper for preparation/dose of 11 herbs used (n=60) 2) Placebo made of starch, glucose, lactose (<1% by weight), bitter, sucrose octaacetate (0.01% of weight) (placebo); duration: 8 weeks; frequency/day: 2; amount (n=59)
Madisch et al., 2004; Trial held in Germany; parallel trial; Setting: primary care	Inclusion & Exclusion criteria: Included: cases with IBS (def: abdominal pain of >=3 months during last 12 months, and associated with disturbances of bowel habit). Excluded: structural lesions, organic diseases, history/current gastrointestinal diseases. Type of IBS: Mixed; IBS definition: Authors' def; Severity of IBS symptoms: Not stated; Bloating/flatus: Some patients; Post infective: not stated Age (range): mean 43.6 yrs SD 12.9 yrs (No range); Gender (M/F): 84:124; Comorbidities: Dose per day: No details given about concentration of the herbs. Also not clear whether the dose per day was 20 drops or 60 drops: paper states "3	1) STW 5 bitter candytuft, chamomile flower, peppermint leaves, caraway fruit, liquorice root, lemon balm leaves, celandine herbs, angelica root, milk thistle fr. (compound non-Chinese herbal preparation); duration: 4 weeks; frequency/day: 3; amount 3 times daily 20 drops (n=51) 2) Placebo (placebo); duration: 4 weeks; frequency/day: 3; amount 3 times daily 20 drops (n=52) B: STW 5-II: bitter candytuft, chamomile flower, peppermint leaves, caraway fruit, liquorice root, lemon balm leaves. 3x/day, 20 drops 4 wks. Group C: bitter candytuft mono extract. 3x/day (20 dr) 4 wks.

Study	*Participants*	*Interventions*
Wang 2006; Trial held in China; parallel trial; Setting: secondary care	Inclusion & Exclusion criteria: Excl: IBS drugs; allergy to food additive, drug or TXNG; inflammatory bowel disease; alcohol/drug abuse; psychiatric illness/ dementia; pregnancy/breastfeeding; serious disease; other study in last 6 mo Type of IBS: Diarrhoea; IBS definition: Rome II; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): mean 37 yr; range 18-65yr; Gender (M/F): 26:31; Comorbidities: none	1) Tong-xie-ning granule (TXNG): Baishao, Baizhu, Qingpi, Xiebai (compound chinese herbal preparation); duration: 3 weeks; frequency/day: 3; amount 15g/day (n=30) 2) Placebo (placebo); duration: 3 weeks; frequency/day: 3; amount 15g (n=30)
Yadav et al, 1989; Trial held in India; parallel trial; Setting: not stated	Inclusion & Exclusion criteria: Included: patients (age 10-60) with IBS using Sandler et al, 1984 criteria i.e. symptoms (including pain, loose stools, mucus) are chronic (> 1yr), occurring more than 25% of time. Excluded: organic gastrointestinal diseases and parasitic infestations. Type of IBS: Mixed; IBS definition: Symptoms described; Severity of IBS symptoms: Not stated; Bloating/flatus: Some patients; Post infective: not stated Age (range): mean 28.4 yr (13-55); Gender (M/F): 147:22; comorbidities: Setting unclear: paper states "patients from Gatroenterology Dept". Age range below 18 included in this study. Mean	1) Compound Ayurvedic preparation with Aegle marmelos correa + Bacopa monniere Linn (compound non-chinese herbal preparation); duration: 6 weeks; frequency/day: 3 (times 5 g); amount 15 g (n=57) 2) Placebo: corn starch+ exciepient containing polyvinylpyrrolodone (glucose anhydrous, citric acid, green colour) (placebo); duration: 6 weeks; frequency/day: 3 (times 5 g); amount 15 g (n= 52) Part B, C, and D are IBS subtypes of overall. B. Diarrhoea IBS cases (n=55). C: Constipation IBS cases (n=33) D: Alternating IBS cases (n=49). B,C,D:Intervention time 6 wks Dose: 3 times 5 g daily.

C20: PSYCHOSOCIAL

Study	*Participants*	*Interventions*
Payne 1995; Trial held in USA; parallel; trial; Setting: not stated	Inclusion & Exclusion criteria: Had IBS Type of IBS: Mixed; IBS definition: Rome I; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): mean around 40yr (22-70); Gender (M/F): 5:29; Comorbidities: 29/34 had an Axis I disorder1 pt dropped out of CT and was replaced. Self help group - guided discussion on aspects of IBS e.g. stress, diet; 1hr 15 mins/week for 8 weeks	1) Self help support group (support group); duration: 8 weeks (n=12) 2) Waiting list control (waiting list control); duration: 8 weeks (n=10) 3) Cognitive treatment
Robinson 2006; Trial held in UK; parallel; trial; Setting: primary care	Inclusion & Exclusion criteria: Excluded if unable to read or understand English Type of IBS: Unclear; IBS definition: 'Had IBS'; Severity of IBS symptoms: Not stated; Bloating/flatus: Not stated; Post infective: not stated Age (range): mean age 40 yr (SD 14.4yr); Gender (M/F): 50:370; Comorbidities: not stated Self-help guidebook: info on lifestyle, diet, drugs & alternative therapies. 1x2-hour self help meeting (8-12 pts; 59/139 attended). Control gp=usual care. Data at trial entry + 1 yr. Bowel symptoms mean 6 yr (SD 7.2yr). 38% satisfied Rome II criteria.	1) Self-help guidebook alone (self help); duration: one-off; frequency/day: ; amount (n=141) 2) Control group (usual care) (n=140) 3) Support group plus self-help guidebook (n=139)

C21: PATIENT INFORMATION

Characteristics of the included studies of this review are detailed in the individual review.

C22: COST-EFFECTIVENESS OF ALTERNATIVE DIAGNOSIS

Study	*Year*	*Country*	*Setting*	*Follow-up*	*Design*	*Population*	*Intervention*	*Comparator*	*Outcomes*
Spiegel	2004	USA	Model based	10-year model horizon	Decision analysis	Rome II, IBS-D, no evidence of alternative organic diagnoses	Screen for coeliac disease and initiate IBS or coeliac treatment accordingly	Initiate IBS treatment without screening for coeliac disease	Cost per additional symptomatic improvement
Mein	2004	USA	Model based	Lifetime horizon (from age 35)	Decision analysis	Suspected IBS	TTG* test or antibody panel[±] or endoscopy	No testing	Cost per QALY, cost per case detected
Suleiman	2001	USA	Model based	Not stated	Decision analysis	Suspected IBS	Alternative sequencing for endoscopy in diagnostic testing strategies	N/A	Cost per % increase in cumulative probability of IBS diagnosis, cost per correct diagnosis
Dubinsky	2002	USA	Model based	1 year model horizon	Decision analysis	IBD symptoms not meeting Rome criteria for IBS	Single or sequential serological tests followed by gold standard	Gold standard alone	Cost per patient assessed, accuracy (% correctly diagnosed as IBD or non-IBS), cost per marginal increase in accuracy.

*TTG, tissue transglutaminase antibody; [±]antibody panel, TTG plus antiglandin IgG and IgA plus quantitative IgA to exclude IgA deficiency

C23: COST-EFFECTIVENESS OF INTERVENTION

Study	*Year*	*Country*	*Setting*	*Follow-up*	*Design*	*Population*	*Intervention*	*Comparator*	*Outcomes*
Robinson	2006	UK	Primary Care N=420	1 year	RCT with three arms	IBS -clinician diagnosis	Self help book OR self help book plus group session	Usual care	Global impression scores, resource use, HRQofL*
Kennedy	2006	UK	Primary Care N=334 (149 randomised)	1 year	RCT with two arms	IBS of moderate or greater severity following 2 weeks of GP care and 4 weeks of mebeverine	Cognitive behavioural therapy + mebeverine	Mebeverine alone	Symptom severity score, service costs and social costs
Creed	2003	UK	Secondary and Tertiary Care N=257	15 months	RCT with three arms	Severe IBS (Rome I, > 6 months duration, failure respond to usual care for >3 months, severe pain	Psychotherapy OR Paroxetine	Usual care	VAS abdominal pain, days with pain, change in symptoms, HRQofL, direct health care and non-health care costs.
Christie	2002	UK perspective (Modelling study based on RCT in France and Scotland)	RCT in secondary care N=115 in RCT	RCT: 1 month controlled with further 2 months follow-up. Model: 3months	Modelling study based on RCT with two arms.	Idiopathic constipation for >3months. 37% elderly recruited from institutions	Low dose PEG+E	Lactulose	NHS costs. Prob of successful treatment

*HRQofL, Health related quality of life; PEG+E, polyethylene glycol 3350 plus electrolytes

APPENDIX D: QUALITY ASSESSMENT OF STUDIES

D1: DIAGNOSIS

Characteristics of the included studies of this review are detailed in the individual review.

D2: PHYSICAL ACTIVITY

Characteristics of the included studies of this review are detailed in the individual review.

D3: FIBRE

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Aller 2004	Unclear	unclear	no single blind	no single blind	yes		not stated	yes; Age, Gender, BMI, Weight,- comparable Smoking -
Arthurs 1983	Unclear	Unclear	yes double blind	yes double blind	no (≤ 20% dropouts)	unclear	not stated	not stated
Chapman 1990	Unclear	unclear	no not blinded	no not blinded	no (≤ 20% dropouts)	no	not stated	yes; age, gender, duration of condition, episodes of pain and number of
Dettmar 1999	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	yes	yes	not stated	not stated; no data on baseline comparability
Fielding 1984	Unclear; stratified randomisation	unclear	yes double blind	yes double blind	no (≤ 20% dropouts)	no	not stated	yes mainly; age, sex ratio, range of fibre and dietary compliance

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Fowlie 1992	Unclear	unclear	yes double blind	yes double blind	no (≤ 20% dropouts)	yes	no	yes; Age, gender, fibre intake, symptom duration painscore,
Longstreth 1981	Unclear	unclear	yes double blind	yes double blind	no (>20% dropouts)	no	no	not stated
Manning 1977	Partial; random numbered cards	unclear	yes double blind (≤ 20% dropouts)	yes double blind	no	unclear	not stated	not stated
Parisi 2002	Unclear	partial; randomisation,analyses were supervised by statistician	no not blinded	no not blinded	yes	yes	not stated	yes; age, gender comparable disease type:
Parisi 2005	Unclear	partial; randomisation and analyses supervised by statistician	no not blinded; given the physical nature of PHGG blinding not possible	no not blinded	unclear	yes	not stated	yes; full details of all baseline data provided- age, BMI, gender,GI

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Prior 1987	Unclear	unclear	yes double blind	yes double blind	no (>20% dropouts)	yes	no	yes, but limited data; severity of symptoms and type of bowel disturbance was
Rees 2005	Unclear; not stated	unclear; not stated	Yes single blind; Patients blinded; assessor unclear	Yes single blind	no (>20% dropouts)	unclear	not stated	yes, but limited data; Age, sex, ethnicity & whether vegetarian
Ritchie 1979	Unclear; not stated	unclear; not stated	yes double blind	yes double blind	yes	yes	not stated	not stated; no info on baseline comparability
Ritchie 1980	Unclear; not stated	unclear; not stated blind	yes double blind	yes double	yes	yes	not stated	not stated; no data on baseline comparability
Soltoft 1976	Unclear	unclear	yes double blind	yes double blind	no (≤ 20% dropouts)	unclear	no	not stated

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Tarpila 2004	Unclear	unclear	yes double blind	yes double blind	no (≤ 20% dropouts)	unclear	no	yes; comparable for gender, age, weight, height, fibre intake prior to study, no of
Villagrasa 1991	Unclear	unclear	not stated	not stated	no (≤ 20% dropouts)	unclear	not stated	yes; age, gender, physical activity, diagnostic criteria all comparable

D4: PRE/PRO-BIOTICS

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*		*ITT?*	*Power Calculation*	*Baseline Comparable*
Bittner 2005	Unclear	unclear	---	---	no	(≤ 20% dropouts)	unclear	not stated	not stated
Gade 1989	Adequate; Computer randomisation	unclear	yes double blind	yes double blind	no	(≤ 20% dropouts)	unclear	not stated	some comparable; symptom scores comparable at baseline.
Kajander 2005	Adequate; Computer generated, blocked randomisation (block size 4)	unclear	yes double blind; Patients were outcome assessors	yes double blind	no	(≤ 20% dropouts)	no	yes	yes; age, gender, BMI, IBS type, Diagnosis method, IBS medication all comparable
Kim 2003	Unclear	adequate; Carried out and maintained by research pharmacist	yes double blind	yes double blind	no	(≤ 20% dropouts)	yes	yes	yes mainly; patients in intervention group slightly older other wise matched for gender, duration of condition and symptoms.
Kim 2005	Unclear	unclear	yes double blind	yes double blind	no	(>20% dropouts)	yes	yes	yes; Comparable for age, gender, symptom scores, bloating scores,
Niedzielin 2001	Unclear	unclear	yes double blind	yes double blind	yes		unclear	not stated	yes mainly; with respect to age, gender, weight and BMI

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*		*ITT?*	*Power Calculation*	*Baseline Comparable*
Niv 2005	Unclear	unclear	yes double blind	yes double blind	no	(>20% dropouts)	yes	not stated	yes mainly; more females +more patients with diarrhoea in intervention group. Otherwise well matched for age, type of IBS,
Nobaek 2000	Unclear	unclear	yes double blind	yes double blind	no	(≤ 20% dropouts)	no	not stated	yes, but limited data; age comparable; gender - slightly more women in control group (64% vs 74%)
Olesen 2000	Adequate; Computer generated	adequate; generated and retained by Unikem	yes double blind	yes double blind	no	(>20% dropouts)	yes	no	yes mainly; Age, weight, IB<S management, bowel function,were comparable; gender was not comparable (more men in the FOS group)
O'Mahony 2004	Adequate; picking a card from a pack	partial; Randomisation performed in presence of study co-ordinator	yes double blind	yes double blind	no	(≤ 20% dropouts)	yes	no	some comparable; Not comparable: symptom scores, analysis adjusted for baseline. Smoking status (Ls 70%, Bi 92%, Pl 58%). Comparable: Age, gender, alcohol use
Saggioro 2004	Unclear	unclear	yes double blind	yes double blind	no	(≤ 20% dropouts)	unclear	no	not stated
Tsuchima 2004	Unclear	unclear	yes double blind	yes double blind	no	(≤ 20% dropouts)	unclear	yes	yes; age, gender, body size, education + presenting symptoms
Whorwell 2006	Unclear	unclear	yes double blind	yes double blind	no	(≤ 20% dropouts)	yes	yes	yes

D5: ALOE VERA

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Davis 2006	Adequate; computerised random numbers table	unclear	Yes double blind; Medication received from central pharmacy in numbered bottles. Code kept in pharmacy till study end	yes double blind	---	yes	yes	Yes mainly; comparable for gender, pain bloating, and type of IBS. Active group had higher IBS score 261.9 vs 226.8
Odes 1991	Unclear	unclear	yes double blind	yes double blind	no (≤ 20% dropouts)	no	not stated	yes, but limited data; laxative use, no of stools per week were comparable , pain levels higher in intervention group at baseline 4.5 SD 5 vs 1.6 SD1.9

D6: EXCLUSION DIET

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Atkinson 2004	Adequate; random number computer generator	adequate; Allocation by identification number only; independent staff	yes double blind	yes double blind	no (≤ 20% dropouts)	yes	yes	yes mainly; baseline IBS symptom severity score higher in true diet group (331.9 (70.8) vs. 309.0 (78.5))
Symons 1992	Inadequate; no information given	inadequate; no information reported	yes double blind	yes double blind	unclear	no	no	not stated

D7: LAXATIVES

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Attar 1999	adequate; computer algorithm	adequate; statistician prepared list; investigators unaware of allocation	no not blinded; drugs different appearance and taste, but packed in identical boxes	no not blinded	no (≤ 20% missing); 10/60 (17%) PEG and 6/55 (11%) missing data	no	yes	yes; Comparable for age, gender, number of stools per week, straining
Bouhnik 2004	unclear	adequate; telephone contact with an operator who opened sealed envelope	no single blind	no single blind	no (≤ 20% missing);	yes	yes	yes mainly; comparable for age, gender, stool freq, straining, bloating, pain at baseline (although more for PEG - ns)
Chaussade 2003	unclear	unclear	yes double blind	yes double blind	no (≤ 20% missing);	unclear	not stated	yes
Corazziari 1996	unclear	unclear	yes double blind	yes double blind	no (≤ 20% missing);	unclear	not stated	yes
Corazziari 2000	unclear	unclear	yes double blind	yes double blind	no (>20% missing); At 8 weeks, 1/33 (3%) PMF and 4/37 (11%) placebo missing data. At 20 w, 10/33 (30%) PMF and 22/37 (59%) placebo	unclear	not stated	yes
Dettmar 1998	unclear	unclear	no not blinded	no not blinded	unclear;	unclear	not stated	yes, but limited data
Kienzle-Horn 2006	unclear	unclear	yes double blind	yes double blind	no (≤ 20% missing);	yes	yes	yes

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Kienzle-Horn 2007	unclear; not stated	unclear; not stated	no single blind; Blinding was not attempted due to the different nature of the study medications-tablets vs liquid.	no single blind	no (≤ 20% missing);	yes	yes	yes, but limited data; Comparable for age, gender ratio, demographic data-no details given.
Medoff 2004	adequate; web based computer program	unclear; location of list not stated	no not blinded; patient assessed; different doses	no not blinded	no (≤ 20% missing); 2/18 (11%) group A and 1/25 (4%) group B did not have at least 7 days data.	no	no	yes mainly; Comparable for age, gender, race, body weight, bowel habit, supine heart rate, bp. Not comparable for rectal irritation (worse in group A).
Quah 2006	adequate; computer generated code	adequate; telephoning research office	no single blind	no single blind	no (≤ 20% missing); 8/50 withdrew straight after randomisation, then 3/21 (14%) withdrew from fibre group and 0% on lactulose.	unclear	not stated	yes; crossover
Rouse 1991	unclear	unclear	no not blinded	no not blinded	no (≤ 20% missing);	unclear	not stated	yes, but limited data
Wulkow 2007	adequate; randomised block design	adequate	yes double blind	yes double blind	yes; well designed study	yes	yes	yes mainly; Age, Severity of condition, Higher proportion of women in placebo group

D8: ANTI-MOTILITY

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Amery 1975	Unclear	unclear; identical, individually-coded capsules	yes double blind	yes double blind	yes; Paper states:	yes	not stated	yes mainly; Loperamide sign.older than placebo group. Other variables/groups comparable: sex, aetiology of diarrhoea, consistency, time of intake, and age.
Cornett 1977	Unclear; not stated	partial; individually coded boxes, identical capsules	yes double blind	yes double blind	no (≤ 20% dropouts); 11% (40/380) missing (40 incomplete diaries).	yes	not stated	yes; Comparable with respect to sex, age, weight, frequency, duration and severity of diarrhoea.
Dettmer 1994	Unclear	unclear	yes double blind	yes double blind	no (≤ 20% dropouts); 7% (13/230) missing.	yes	yes	yes mainly; No differences between the groups with respect to demographics or baseline disease characteristics with the exception of sex
Dom 1974	Unclear	unclear	yes double blind; paper only states "identical capsules", "double blind" and "breaking of the medical code"	yes double blind	no (≤ 20% dropouts); 9.9 % (56/563) missing.	no	not stated	yes; comparable for sex, age; kind, cause, duration and severity of diarrhoea
Dreverman 1995	Unclear	unclear	yes double blind	yes double blind	no (≤ 20% dropouts); 3% (8/242) missing.	yes	not stated	yes; No significant difference at baseline in demographic data or in disease characteristics.

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Efskind 1995	Unclear	unclear	yes double blind	yes double blind	no (>20% dropouts); 23% (21/90 missing.	yes	not stated	yes; age, height, blood oressure, physical actvity, social life, stress, quality of life, previous medication/ operation
Ericsson 1990	Unclear	unclear	yes double blind; States "identical yellow capsules, double-blind".	yes double blind	no (>20% dropouts); 41% (37/91) missing.	yes	yes	yes; no significant difference by age, sex, duration of diarrhoea prior to therapy, severity of diarrhoea prior to treatment.
Harford 1980	Unclear	unclear	yes double blind; "neither patients, laborotary personnel, nor physicians in charge knew until code broken"	yes double blind	no (≤ 20% dropouts); 7% (1/15) missing.	yes	not stated	yes, but limited data; crossover study
Hovdenak 1987	Unclear	unclear	yes double blind; paper states "double blind"	yes double blind	no (≤ 20% dropouts); 3% (2/60) missing.	yes	not stated	yes; Comparable with respect to age, sex, duration of symptoms, smoking/ drinking habits, laboratory tests, and previous treatment
Jaffe 1977	Unclear; not stated	unclear; not stated	no not blinded; two drugs have a dissimilar appearance, no attempt was made to blind it.	no not blinded	yes;	yes	not stated	yes; Comparable on sex, age, bowel frequency, duration of diarrhoea, number of bowel actions, nausea/vomiting, abdominal pain

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Lavo 1987	Unclear	unclear; not stated	yes double blind	yes double blind	no (≤ 20% dropouts); 16% (4/25) missing.	yes	not stated	yes mainly; No differences in patient characteristics reported, except that the age in the loperamide group was significantly lower than that of the placebo group
Lee 1968	Unclear	unclear	not stated	not stated	no (≤ 20% dropouts); 2% (3/167) missing.	yes	not stated	yes; comparable age, sex, severity, vomiting and pain
Lustman 1987	Unclear	unclear	yes double blind	yes double blind	no (≤ 20% dropouts); 4% (7/152) missing.	yes	not stated	yes; comparable on age, sex, median number of watery stools 24-h prior to entry.
Pelemans 1976	Unclear	partial; bottles marked with the patient's code number, and identical capsules	yes double blind	yes double blind	no (>20% dropouts); 26% (6/23) missing on main outcome measure.	yes	not stated	yes; crossover
Taneja 2004	Unclear	unclear	no not blinded; Not possible to blind patients to yoga versus medicine	no not blinded	no (≤ 20% dropouts); 5% (1/22) missing.	yes	not stated	yes; comparable on bowel symptom score, autonomic symptom score, state anxiety score, gastric motility

D9: ANTISPASMODICS

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Berthelot 1981	----	unclear; From Cochrane	yes double blind	yes double blind	---	----	---	----
Carling 1989	Unclear	unclear	yes double blind; Double dummy	yes double blind	no (≤ 20% dropouts)	unclear	no	yes; age, gender, history of IBS, pain, bloating, constipation, diarrhoea all comparable.
Czalbert 1990	Unclear	unclear	not stated	not stated	yes	unclear	not stated	yes, but limited data; comparable for gender, age
Gilbody 2000	Unclear; not stated	unclear; not stated	yes double blind	yes double blind	no (≤ 20% dropouts)	yes	not stated	yes
Inauen 1994	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	no (≤ 20% dropouts)	unclear	not stated	yes
Kruis 1986	Unclear	unclear	yes double blind	yes double blind	no (≤ 20% dropouts)	no	not stated	yes, but limited data; comparable for age and ,gender
Lech 1988	Unclear	unclear	yes double blind	yes double blind	unclear	unclear	not stated	not stated
Liu 1997	Unclear	unclear	yes double blind	yes double blind	no (≤ 20% dropouts)	unclear	not stated	some comparable; comparable for pain, bloating, flatulence, heartburn, nausea. Not comparable for severity of stool frequency (more severe for Colpermin)

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Mitchell 2002	Unclear; blocks of 4 allocated sequentially but method not stated	unclear; not stated	yes double blind	yes double blind	no (≤ 20% dropouts)	yes	yes	yes
Nigam 1984	Unclear; not stated	unclear; not stated	yes double blind	yes double blind	yes	unclear	not stated	not stated; no info on comparability
Page 1981	Unclear; not stated	unclear; not stated	yes double blind	yes double blind	no (>20% dropouts)	unclear	not stated	yes
Ritchie 1979	Unclear; not stated	adequate; issued in random order by pharmacist	yes double blind	yes double blind	yes	unclear	not stated	not stated
Schafer 1990	----	---	yes double blind	yes double blind	---	----	---	----

D10: ANTI-DEPRESSANTS

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Boerner 1988	Adequate; from Cochrane review	unclear	yes double blind	yes double blind	no (≤ 20% dropouts); 2/40 from intervention and 2/39 from placebo group dropped out	unclear	not stated	----
Creed 2003	Adequate; computer generated	adequate; randomisation by statistician independent of study	no not blinded; Assessors did not know treatment allocation. Clinicians worked independently from researchers.	no not blinded	no (>20% dropouts); 16% (14/86) paroxetine; 14% (12/85) psychotherapy; 0% routine care did not start trial. Further 29/72 (40%) paroxetine, 14/73 (19%) psychotherapy discontinued treatment, usual care 7/86 loss to f-u.	yes	yes	yes; no differences in important demographic diagnostic and baseline outcome variables.
Kuiken 2003	Adequate; computer generated	adequate; randomisation by pharmacy	yes double blind; patients assessed	yes double blind	no (≤ 20% dropouts); 2/19 dropped out in SSRI group; 4/21 (19%) in placebo group	unclear	yes	yes; comparable for rectal sensitivity, pain, urgency, bloating, psychological rating
Myren 1984	Unclear	unclear	yes double blind; stated to be double blind	yes double blind	no (≤ 20% dropouts); Dropout: 18% (75/428)	unclear	not stated	yes, but limited data; comparable for age, body weight, gender, consumption of tobacco, alcohol or drugs, laboratory tests, roentgenography, or endoscopy.

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Myren 1982	Inadequate; randomisation not stated	unclear	yes double blind	yes double blind	yes;	yes	not stated	yes mainly; similar age, gender, duration of symptoms, consumption of alcohol/tobacco, haemoglobin concentration, sedimentation rate, Not comparable for vomiting
Rajagopalan 1998	Unclear	unclear	yes double blind	yes double blind	no (>20% dropouts); Dropout 18 out of 40. Those dropped out had a significantly shorter duration of symptoms.	yes	no	yes mainly; Not comparable on stool type (drug gp had looser stools). Comparable on age, sex, education, symptom duration, anxiety, depression, stool frequency.
Steinhart 1981	Unclear	unclear	yes double blind	yes double blind	yes;	yes	no	yes, but limited data; Crossover study. No comparability problems stated.
Tabas 2004	Adequate; Computer generated	adequate; Identical capsules sealed in sequentially numbered identical containers. Randomisation by pharmacist	yes double blind	yes double blind	no (≤ 20% dropouts); Missing data 21% (8 of 38) of paroxetine group and 16% (7 out of 43). 36 patients per group to detect 30% difference in response.	yes	yes	yes; comparable for age, fibre intake, gender, IBS symptoms, alcohol use, laxative use and BDI (depression) scores

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Tanum 1996	Unclear	unclear	yes double blind	yes double blind	no (≤ 20% dropouts); Drop out 2 out of 49 (4%).	yes	not stated	yes; comparable for age, gender, symptoms, disorder duration, pain, depression, distress
Tripathi 1983	Unclear	unclear	yes double blind	yes double blind	yes;	yes	not stated	not stated
Vij 1991	Adequate; random number tables	unclear	yes double blind	yes double blind	no (≤ 20% dropouts);	unclear	not stated	yes, but limited data; comparable for gender and age

D11: ADVERSE EFFECTS

Characteristics of the included studies of this review are detailed in the individual review.

D12: RELAXATION

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Blanchard 1993	Unclear; not stated	Unclear; not stated	no not blinded	no not blinded	No (>20 % dropouts)	no	no	yes
Forbes 2000	Adequate; computer generated	unclear; not stated	no not blinded	no not blinded	yes	yes	no	yes
Keefer 2001	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	No (≤ 20% dropouts)	no	no	yes

D13: BIOFEEDBACK

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Blanchard 1992a	Unclear	unclear	no single blind	no single blind	yes	unclear	no	some comparable; Age range, gender, duration of condition
Blanchard 1992b	Inadequate	unclear	no single blind	no single blind	no (≤ 20% dropouts)	no	yes	some comparable; Age range, gender, duration of condition, IBS sub-type
Leahy 1997	Unclear	unclear	no single blind	no single blind	unclear	unclear	no	not stated
Neff 1987	Unclear	unclear	no single blind	no single blind	no (≤ 20% dropouts)	no	no	some comparable; gender, age, marital status and duration of condition

D14: PSYCHOTHERAPY

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Creed 2003	Adequate; computer generated	adequate; independent study administrator	no single blind	no single blind	no (≤ 20% dropouts)	yes	yes	yes
Guthrie 1991	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	no (≤ 20% dropouts)	yes	not stated	yes mainly; More males in control group (17/49 vs. 8/53, p<0.05)
Svedlund 1983	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	no (≤ 20% dropouts)	unclear	not stated	yes

D15: COGNITIVE BEHAVIOUR THERAPY

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*		*ITT?*	*Power Calculation*	*Baseline Comparable*
Bennett 1985	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	no	(>20% dropouts)	unclear	not stated	not stated
Bergeron 1983	Unclear; Not stated (abstract only)	unclear; Not stated (abstract only)	not stated	not stated	unclear		unclear	not stated	not stated; Abstract only
Blanchard 1993	Unclear; not stated	unclear; not stated	no not blinded; Outcome self-report data from patients	no not blinded	no	(>20% dropouts)	no	not stated	yes; 6 drop-outs from relaxation group; 1 from controls; drop-outs replaced so not ITT
Bogalo 2006	Unclear; not stated	partial; sealed envelopes	not stated	not stated	unclear		unclear	not stated	not stated
Boyce 2003	Adequate; Random number generator	partial; Sealed envelopes	no single blind	no single blind	no	(>20% dropouts)	unclear	not stated	yes
Corney 1991	Unclear; Not stated	unclear; Not stated	no not blinded	no not blinded	no	(≤ 20% dropouts)	----	not stated	yes
Drossman 2003	Adequate; computer generated	adequate; Only those not involved in clinical assessment or treatment aware of allocation	yes double blind	yes double blind	no	(≤ 20% dropouts)	yes	yes	yes
Fernandez 1998	Unclear; not stated	unclear; not stated	no single blind	no single blind	no	(>20% dropouts)	unclear	not stated	yes
Gong 2002	Unclear; not stated	unclear; not stated	no not blinded; not blinded	no not blinded	yes		yes	not stated	not stated; abstract only

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Greene 1994	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	yes	yes	not stated	yes
Heymann-Monnikes 2000	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	no (≤ 20% dropouts)	no	not stated	yes mainly; Medical group older (mean 45.1 SD 14.2 vs 30.5 SD 10.8), p<0.01.
Kennedy 2005	Partial; Random number tables; randomisation in blocks of 4	partial; independent statistician & clerical staff but concealment not adequately maintained on all occasions	no not blinded; patient reported outcome measure	no not blinded	no (≤ 20% dropouts)	yes	yes	yes
Lynch 1989	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	no (>20% dropouts)	unclear	not stated	yes
Payne 1995	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	yes	no	not stated	yes
	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	yes	no	not stated	yes
Tkachuk 2003	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	yes	unclear	not stated	yes; pairs of patients matched on Axis I disorder; IBS type, symptom duration, age & gender
Toner 1998	Unclear; not stated	unclear; not stated	not stated	not stated	unclear	unclear	---	not stated; no baseline data
Vollmer 1998	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	yes	unclear	not stated	yes

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Greene 1994	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	yes	yes	not stated	yes
Heymann-Monnikes 2000	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	no (≤ 20% dropouts)	no	not stated	yes mainly; Medical group older (mean 45.1 SD 14.2 vs 30.5 SD 10.8), p<0.01.
Kennedy 2005	Partial; Random number tables; randomisation in blocks of 4	partial; independent statistician & clerical staff but concealment not adequately maintained on all occasions	no not blinded; patient reported outcome measure	no not blinded	no (≤ 20% dropouts)	yes	yes	yes
Lynch 1989	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	no (>20% dropouts)	unclear	not stated	yes
Payne 1995	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	yes	no	not stated	yes
	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	yes	no	not stated	yes
Tkachuk 2003	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	yes	unclear	not stated	yes; pairs of patients matched on Axis I disorder; IBS type, symptom duration, age & gender
Toner 1998	Unclear; not stated	unclear; not stated	not stated	not stated	unclear	unclear	---	not stated; no baseline data
Vollmer 1998	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	yes	unclear	not stated	yes

D16: HYPNOTHERAPY

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Forbes 2000	Adequate; computer generated	unclear; not stated	no not blinded	no not blinded	yes	yes	no	yes
Galovski 1998	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	yes	no	no	yes
Harvey 1989	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	no (≤ 20% dropouts)	unclear	not stated	not stated
Palsson 2002	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	no (≤ 20% dropouts)	unclear	not stated	no; significant difference in pain and bloating
Roberts 2006	Unclear; not stated	partial; sealed envelopes	no not blinded	no not blinded	no (≤ 20% dropouts)	yes	yes	yes mainly; Age comparable; more males in intervention group (8/40 vs. 4/41); some differences in baseline quality of life scores
Whorwell 1984	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	yes	unclear	not stated	yes mainly; Bowel habit more severely disordered in patients on hypnotherapy

D17: REFLEXOLOGY

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Tovey 2002	Inadequate; Alternation	Inadequate; Alternation	yes single blind	Yes single blind	yes	unclear	yes	yes; comparable for abdominal pain, constipation, diarrhoea and bloating

D18: ACUPUNCTURE

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Fireman 2001	Unclear	unclear	yes double blind	yes double blind	yes	unclear	no	yes; age, gender, symptom score, duration of condition
Forbes 2005	Adequate; computer generated random numbers	partial; sealed envelopes	yes double blind	yes double blind	yes	yes	yes	----
Liu 1997	Unclear	unclear	no single blind	no single blind	no (>20% dropouts)	unclear	no	not stated
Lowe 2000	Unclear	unclear	not stated	not stated	yes	yes	yes	yes; age, symptom score, Beck depression and State trait anxiety score
Schneider 2006	Unclear	adequate; block randomisation by central telephone centre	yes double blind	yes double blind	no (≤ 20% dropouts)	yes	yes	yes; age, severity and duration of condition, gender

D19: HERBAL MEDICINE

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Bensoussan 1998	Partial; states: "selection of a sealed envelope from a closed bag".	unclear; Not clear whether allocator had knowledge of patients	yes double blind	yes double blind	no (≤ 20% dropouts)	no	yes	yes mainly; similar on age, sex, weight and severity of symptoms
Brinkhaus 2005	Unclear	adequate; states “randomisation done centrally by an external, independent”	yes double blind	yes double blind	yes	yes	no	yes; no significant differences on age, gender, duration of IBS
Leung 2006	Adequate; Paper states: "computer generated list of random	adequate; Independent staff member assigned treatments using sequentially	yes double blind	yes double blind	no (≤ 20% dropouts)	unclear	yes	yes; comparable age, sex, BMI, alcohol/tobacco consumption, IBS symptom

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Madisch 2004	Partial; Paper states randomisation code list in a random	unclear; Stated "patients were included in sequential order using random list"	yes double blind; States "sealed coded envelope was only to be opened"	yes double blind	yes	yes	yes	yes; no sign. differences regarding age, sex, weight, height, duration
Wang 2006	Adequate; computer generated	partial; sealed envelopes	yes double blind blind	yes double blind	no (≤ 20% dropouts)	yes	yes	yes
Yadav 1989	Unclear blind	unclear	yes double blind	yes double blind	no (>20% dropouts)	no	not stated	yes; no significant difference in age, sex, duration

D20: PSYCHOSOCIAL

Study	*Sequence Generation*	*Allocation Concealment*	*Outcome Assessor Blinded*	*Patient Blinding*	*Attrition*	*ITT?*	*Power Calculation*	*Baseline Comparable*
Payne 1995	Unclear; not stated	unclear; not stated	no not blinded	no not blinded	yes	no	not stated	yes
Robinson 2006	Adequate; minimisation	adequate; Central telephone randomisation	no not blinded	no not blinded	no (≤ 20% dropouts)	yes	no	not stated

D21: PATIENT INFORMATION
Characteristics of the included studies of this review are detailed in the individual review.

D21: COST-EFFECTIVENESS OF ALTERNATIVE DIAGNOSIS
Characteristics of the included studies of this review are detailed in the individual review.

D23: COST-EFFECTIVENESS OF INTERVENTION
Characteristics of the included studies of this review are detailed in the individual review.

Appendix E: Excluded studies

E1: DIAGNOSIS

Study	Reason for exclusion
Addolorato 1998	Did not use of a criterion referenced diagnostic tool
Agreus 2000	Did not use of a criterion referenced diagnostic tool
Alderman 1999	Did not use of a criterion referenced diagnostic tool
Anon 1994	Did not use of a criterion referenced diagnostic tool
Anon 1997	Did not use of a criterion referenced diagnostic tool
Anon 2004	Did not use of a criterion referenced diagnostic tool
Avigan 2003	Did not use of a criterion referenced diagnostic tool
Banerjee 2005	Did not use of a criterion referenced diagnostic tool
Beck 1992	Did not use of a criterion referenced diagnostic tool
Bertram 2001	Did not use of a criterion referenced diagnostic tool
Besedovsky 2004	Did not use of a criterion referenced diagnostic tool
Böhmer 1996	Did not use of a criterion referenced diagnostic tool
Bommelaer 2002	Did not use of a criterion referenced diagnostic tool
Camilleri 1992	Did not use of a criterion referenced diagnostic tool
Cayley Jr 2006	Did not use of a criterion referenced diagnostic tool
Chang 2003	Did not use of a criterion referenced diagnostic tool

Study	Reason for exclusion
Chiba 2005	Did not use of a criterion referenced diagnostic tool
Clouse 1988	Did not use of a criterion referenced diagnostic tool
Coffin 2006	Did not use of a criterion referenced diagnostic tool
Cole 2005	Did not use of a criterion referenced diagnostic tool
Dhaliwal 2004	Did not use of a criterion referenced diagnostic tool
Drossman 1979	Did not use of a criterion referenced diagnostic tool
Edwards 1996	Did not use of a criterion referenced diagnostic tool
Feld 2003	Did not use of a criterion referenced diagnostic tool
Ferrazzi 2002	Did not use of a criterion referenced diagnostic tool
Fielding 1981	Did not use of a criterion referenced diagnostic tool
Foxx-Orenstein 2001	Did not use of a criterion referenced diagnostic tool
Garrigues 2004	Did not use of a criterion referenced diagnostic tool
Gerson 2003	Did not use of a criterion referenced diagnostic tool
Gladman 2003	Did not use of a criterion referenced diagnostic tool
Gonsalkorale 2005	Did not use of a criterion referenced diagnostic tool
Grundfast 2001	Did not use of a criterion referenced diagnostic tool
Halpert 2005	Not in BNF

Study	Reason for exclusion
Halpert 2005	Did not use of a criterion referenced diagnostic tool
Hammer 1999	Did not use of a criterion referenced diagnostic tool
Heitkemper 2004	Did not use of a criterion referenced diagnostic tool
Hershfield 2005	Did not use of a criterion referenced diagnostic tool
Hoey 2002	Did not use of a criterion referenced diagnostic tool
Holmes 1982	Did not use of a criterion referenced diagnostic tool
Hu 2003	Did not use of a criterion referenced diagnostic tool
Ilnyckyj 2002	Did not use of a criterion referenced diagnostic tool
Jun 2006	Did not use of a criterion referenced diagnostic tool
Langmead 2002	Did not use of a criterion referenced diagnostic tool
Lynch 1987	Did not use of a criterion referenced diagnostic tool
Marzio 1989	Did not use of a criterion referenced diagnostic tool
Mearin 2004	Did not use of a criterion referenced diagnostic tool
Mearin 2005	Did not use of a criterion referenced diagnostic tool
Monsbakken 2006	Did not use of a criterion referenced diagnostic tool
Neri 2000	Did not use of a criterion referenced diagnostic tool
Ragnarsson 2000	Did not use of a criterion referenced diagnostic tool
Robinson 2006	Did not use of a criterion referenced diagnostic tool
Ross 2005	Did not use of a criterion referenced diagnostic tool

Study	Reason for exclusion
Ruigomez 1999	Did not use of a criterion referenced diagnostic tool
Rutter 2002	Did not use of a criterion referenced diagnostic tool
Sanders 2003	Did not use of a criterion referenced diagnostic tool
Schmidt 1992	Did not use of a criterion referenced diagnostic tool
Shafik 2004	Did not use of a criterion referenced diagnostic tool
Shaw 1991	Did not use of a criterion referenced diagnostic tool
Sperber 2006	Did not use of a criterion referenced diagnostic tool
Stenner 2000	Did not use of a criterion referenced diagnostic tool
Suh 2007	Did not use of a criterion referenced diagnostic tool
Svendsen 1985	Did not use of a criterion referenced diagnostic tool
Tack 2006	Did not use of a criterion referenced diagnostic tool
Talley 1992	Did not use of a criterion referenced diagnostic tool
Talley 2003	Did not use of a criterion referenced diagnostic tool
Thompson 1986	Did not use of a criterion referenced diagnostic tool
Thompson 1997	Study in GPs rather than IBS patients; Did not use of a criterion referenced diagnostic tool
Tillisch 2005	Did not use of a criterion referenced diagnostic tool
Toner 2005	Did not use of a criterion referenced diagnostic tool
Treacher 1986	Did not use of a criterion referenced diagnostic tool
Trotman 1986	Did not use of a criterion referenced diagnostic tool

Study	Reason for exclusion
Vahedi 2005	Did not use of a criterion referenced diagnostic tool
van der Horst 1997	Did not use of a criterion referenced diagnostic tool
Vandvik 2004	Did not use of a criterion referenced diagnostic tool
Vernia 1987	Did not use of a criterion referenced diagnostic tool
Vernia 2004	Did not use of a criterion referenced diagnostic tool
Wahnschaffe 2001	Did not use of a criterion referenced diagnostic tool
Wahnschaffe 2001	Celiac disease-like abnormalities in IBS patients
Walker 1995	Did not use of a criterion referenced diagnostic tool
Walter 2005	Did not use of a criterion referenced diagnostic tool
Wilson 2004	Did not use of a criterion referenced diagnostic tool
Yawn 2001	Did not use of a criterion referenced diagnostic tool

E2: PHYSICAL ACTIVITY

Study	Reason for exclusion
Bengtsson 2006	No physical activity outcome
Colwell 1998	Not RCT
Curtin 1998	Not RCT
Dancey 2002	Not RCT
Guthrie 1991	Not physical activity and IBS trial
Kim 2005	Not RCT
Lustyk 2001	Not RCT
Oettle 1991	Not RCT
Van Nieuwenhoven 2000	Not physical activity and IBS trial
Sanjoaquin 2004	Not RCT

E3: FIBRE

Study	Reason for exclusion
Arffmann 1983	Crossover study with no washout period
Badiali 1995	Single symptom: only on constipation
Bliss 2001	Single symptom
Bouchoucha 2004	Not IBS; healthy volunteers
Capra 1992	Not IBS
Capron 1981	Not in English
Chan 2005	Not RCT
Cooke 2000	Not RCT
Corinaldesi 1982	Single symptom
Chen 2000	Elderly patients
Darnis 1980	Not in English
Dear 2005	Treatment duration less than 4 weeks for maintenance study
Fielding 1981	Not fibre
Francis 1994	Not RCT
Friedman 1994	Elderly patients
Gibson 1995	Elderly patients
Golechha 1982	Treatment duration less than 4 weeks and washout period too short
Greenbaum 1981	Not data reported

Study	Reason for exclusion
Hebden 2002	Treatment duration less than 4 weeks and washout period too short
Hongisto 2006	Not enough for IBS, only constipation
Hotz 1994	Cross over study
Jalihal 1990	Crossover study with washout period too short
Kirwan 1974	Not RCT; Single symptom: only on constipation
Kumar 1987	Crossover study with washout period too short
Lambert 1991	Education trial; not outcome of interest
Manning 1976	Not RCT; comment
Masamune 1998	Not in BNF
Matek 1982	Not in English
Misra 1989	Inappropriate comparison: combined treatment versus placebo
Mortensen 1987	Crossover study with no washout period
Moser 2003	Not in English
Odes 1991	Included some people with IBS but data not analysed separately
Odes 1993	Not IBS
Pallota 1993	Not in English

Study	Reason for exclusion
Passmore 1993	Elderly patients; single symptoms
Patrick 1998	Elderly patients
Rao 2003	Single symptom: only on constipation
Sculati 1984	Only on constipation
Snook 1994	Crossover study with washout period too short
Stern 1966	Not IBS
Tomás-Ridocci 1992	Mixed population and IBS not reported separately
Turconi 1995	Participants were healthy volunteers
Watson 2005	Crossover study with no washout period
Wisten 2005	Elderly patients

E4: PRE/PRO-BIOTICS

Study	Reason for exclusion
Bouhnik 1999	Not IBS patients
Brigidi 2001	Crossover study; not comparison
De Simone 2001	Insufficient duration of treatment
Di Lorenzo 1991	Not RCT
Di Stefano 2000	Insufficient duration of treatment
Drisko 2006	Not RCT
Fan 2006	Not RCT
Fanigliulo 2006	Insufficient duration of treatment
Frexinos 1988	Not IBS patients
Gibson 2004	Not in vivo study
Halpern 1996	Crossover study
HÜbner 2002	Not a pre/pro-biotic
Hunter 1999	Crossover study
Jain 1986	Insufficient duration of treatment
Koebnick 2003	Not IBS
Levitt 1996	Not IBS patients
Malinen 2005	Crossover study; placebo in healthy controls
Newcomer 1983	Crossover study

Study	Reason for exclusion
O'Sullivan and O'Morain 2000	Crossover study
Pimentel 2004	Not RCT
Sen 2002	Crossover study
Sharara 2006	Insufficient duration of treatment
Xiao 2003	Not IBS
Xiao 2002	Not IBS

E5: ALOE VERA

Study	Reason for exclusion
Baar 1995	Not IBS patients included
Vogler 1999	Not IBS patients included

E6: EXCLUSION DIET

Study	Reason for exclusion
Addolorato 1998	Not exclusion diet
Adler 2006	Not exclusión diet
Bardella 2001	Not exclusión diet
Bengtsson 1996	Not IBS
Binslev-Jensen 1994	Not exclusion diet
Bohmer 2001	
Dunlop 2001	Comment, not study
Jun 2006	Not exclusión diet
Leri 1997	Disodium cromoglycate not used in the UK
Lunardi 1991	Not exclusion diet
Monsbakken 2006,	Cross sectional survey
Piccinini 1990	Disodium chromoglycate not used in the UK
Sanders 2003	Not exclusion diet
Stefanini 1995	Disodium chromoglycate (same as cromolyn sodium) not used in the UK
Tolliver 1996	Not exclusion diet
Walker 2001	Not RCT
Wahnschaffe 2001	Not exclusion diet

E7: LAXATIVES

Study	Reason for exclusion
Barrow 1993	Not IBS; healthy volunteers
Bass 1981	Crossover study in constipated subjects and healthy volunteers
Bass 1988	Intervention not used in UK, calcium polycarbophil
Bassotti 1999	Not RCT, sequential design
Bosshard 2004	Elderly hospitalised/day centre patients
Castillo 1995	Not in English
Chokhavatia 1988	Intervention not used in UK, calcium polycarbophil
Christie 2002	Based on RCT but cost outcome
Clausen 1998	Healthy volunteers
Cleveland 2001	Treatment duration too short (two weeks) and crossover with no reported washout period
Connolly 1975	Treatment duration too short (one week)
Danhof 1982	Intervention not used in UK, calcium polycarbophil
DiPalma 2000	Treatment duration too short (two weeks)
Ducrotte 2005	Intervention not used in UK, beidellitic montmorillonite (but in IBS patients)
Fenn 1986	Too short, only 14 days
Flourie 1993	Healthy volunteers
Fritz 2005	Healthy volunteers
Hamilton 1988	Treatment duration too short (10 days)

Study	Reason for exclusion
Hebden 1999	Not IBS; healthy volunteers
Huys 1975	Not in English
Kienzle-Horn 2006	Not in BNF: bisacodyl; single symptom: only on constipation
Kinnunen 1989	Elderly patients
Kinnunen 1993	Geriatric patients
Lederle 1990	Comparator not used in UK any more; also in ambulatory elderly patients
MacLennan 1975	Elderly patients; single symptom: only on constipation
Marlett 1987	Treatment duration too short (one week)
Masamune 1998 (a) and (b)	Intervention not used in UK, calcium polycarbophil
Müller-Lissner 2005	Not RCT
Passmore 1993	Residencial patients, some in nursing homes
Piai 1987	Intervention not used in UK, glucomannan (but in IBS patients)
Reichard 1990	Single symptom: only on constipation
Sobhani 1996	Treatment duration too short; crossover with no reported washout period
Spiller 1979	Healthy volunteers
Stoltz 2001	Not comparative study
Tomlin 1988	Not IBS
Toskes 1993	Intervention not used in UK, calcium polycarbophil
Verheyen 1987	Not a laxative
Wang 2004	Treatment duration too short (two weeks)

E8: ANTI-MOTILITY AGENTS

Study	Reason for exclusion
Alestig 1979	Acute diarrhoea but duration >1 week (up to four weeks)
Allison 1988	Excluded as crossover study with no washout period
Barbezat 1979	Treatment duration less than 4 weeks for maintenance study
Basilico 1987	Not IBS: healthy volunteers
Camilleri 2003	Not used as an antimotility agent in the BNF
Cann 1984 (a)	Crossover study; only as drug trial
Cann 1984 (b)	Excluded as crossover study with no washout period
Corbett 1980	Excluded as crossover study with no washout period
de Coster 1972	Excluded as chronic diarrhoea due to inflammatory bowel disease
Demeulenaere 1974	Excluded as chronic diarrhoea due to inflammatory bowel disease
Dzieniszewski 1990	Not said to be randomised
General Practice Research 1978	Not said to be randomised
Palmer 1980	Excluded as crossover study with no washout period
Qvitzau 1988	Excluded as chronic diarrhoea due to inflammatory bowel disease
Tijtgat 1975	Treatment duration less than 4 weeks for maintenance study
Verhaegen 1974	Treatment duration less than 4 weeks for maintenance study
Zhang 2000	Treatment duration less than 4 weeks for maintenance study
Zhang 2002	Treatment duration not specified

E9: ANTISPASMODICS

Study	Reason for exclusion
Armbrecht 1990	Not IBS
Awad 1995	Not in BNF: pinaverium bromide
Awad 1997	Not in BNF: pinaverium bromide
Baeyens 1979	Not IBS
Baldi 1983	Not in BNF: octilonium bromide
Baldi 1991	Not in BNF: otcilonium bromide
Baldi 1992	Not in BNF: octilonium bromide
Barbara 1979	Not in BNF: octatropine methylbromide
Barbier 1981	Not in English
Bassotti 1986	Not in BNF
Battaglia 1998	Not in BNF: otilonium bromide
Baume 1971	Not RCT
Bell 1983	Volunteers not said to be IBS; pharmacokinetic study
Bouchoucha 1992	Not IBS
Bouchoucha 2000	Not RCT
Camarri 1981	Not in English
Camilleri 2001	Not in BNF: alosetron
Capurso 1984	Not in BNF: octilonium bromide

Study	Reason for exclusion
Capurso 1992	Not in BNF: octilonium bromide
Centonze 1988	Not in BNF: cimetropium bromide
Christoffel 1994	Not IBS
Corazza 1983	Not in BNF: pinaverium bromide
Czimmer 2001	Not RCT
D'Arienzo 1980	Not in BNF: octilonium bromide
Defrance 1991	Not in BNF: octilonium bromide
Delmont 1981	Not in BNF: pinaverium bromide
Dew 1984	Crossover study with no or not reported washout period (assumed to be none)
Dobrilla 1990	Not in BNF: cimetropium bromide
Dubarry 1977	Not in BNF: pinaverium bromide
Dumitrascu 2000	Not in BNF: trimebutine
Ehsanullah 1985	Not in BNF: secoverine
Endo 2002	Not IBS
Evangelista 1999	Not in BNF: otilonium bromide
Evans 1996	Not RCT
Evans 1982	Crossover study with no or not reported washout period (assumed to be none)
Ferrari 1986	Not in BNF: octilonium bromide
Fielding 1980	Not evidence of randomisation
Fielding 1982	Drug trial; all had fibre

Study	Reason for exclusion
Froguel 1989	Not IBS
Galati 1995	Atropine not used
Galeone 1986	Not in BNF: pinaverium bromide
Galeone 1990	Not in BNF: syntropium bromide
Galeone 1992	Not in BNF: fenoverine
General Practice Research Group 1976	Crossover study with no or not reported washout period (assumed to be none)
Ghidini 1986	Not in BNF: rociverine vs trimebutine
Glende 2002	Not in BNF: otilonium bromide
Hennessy 1975	Crossover study with no or not reported washout period (assumed to be none)
Houghton 1997	Not in BNF: zamifenacin
Hu 2001	Not in English
Imbimbo 1990	Not in BNF: cimetropium bromide; not IBS
Jafri 2006	Not comparative
Jones 1999	Not in BNF: alosetron
Kaushik 2002	Not comparative
Kasich 1959	Not evidence of randomisation
Lawson 1988	Crossover study with no or not reported washout period (assumed to be none)
Lee 1981	Not in BNF: trimebutine; not extractable data
Levy 1977	Not in BNF: pinaverium bromide
Lu 2000	Not in BNF: pinaverium bromide

Study	Reason for exclusion
Luttecke 1980	Not in BNF: trimebutine
Matts 1967	Crossover study with no or not reported washout period (assumed to be none); intervention time too short
Moshal 1979	Not in BNF: trimebutine
Narducci 1986	Not RCT
Nash 1986	Crossover study with no or not reported washout period (assumed to be none)
Pardell 1982	Wrong comparator
Passaretti 1989	Not in BNF: cimetropium bromide
Pei 1999	Not in English
Piai 1979	Not in BNF: prifinium bromide
Piai 1986	Not in BNF: cimetropium bromide
Piai 1987	Not in BNF: cimetropium bromide
Prout 1983	Crossover study with no or not reported washout period (assumed to be none)
Pulpeiro 2000	Not in BNF: propinox
Rees 1979	Not said to be randomised
Rhodes 1978	Not RCT; not randomised
Salandre 1989	Not in BNF
Sasaki 1985	Not in BNF: prifinium bromide
Schaffstein 1990	Not in BNF: trimebutine
Schang 1993	Not in BNF: trimebutine

Study	Reason for exclusion
Somerville 1984	Not IBS
Tarquini 1984	Not in English
Tasman-Jones 1973	Crossover study with no or not reported washout period (assumed to be none)
Tsuneoka 1987	Not in English
van Outryve 1995	Crossover study with no or not reported washout period (assumed to be none)
Virat 1987	Not in BNF: pinaverium bromide
Yadav 1989	Not useful comparison
Zhou 2002	Not in English

E10: ANTIDEPRESSANTS

Study	Reason for exclusion
Aberg and Holmberg 1977	Amoxapine discontinued in BNF
Alevizos 1989	Amineptine not in BNF
Ansseau 1989	Not IBS
Clouse 1994	Not RCT
Coates 2004	Not RCT
Gilvarry 1989	Pirenzepine not in BNF
Gorard 1994	Not RCT
Greenbaum 1987	Desipramine not in BNF
Greenbaum 1973	Diphenylhydantoin – not antidepressant
Greenbaum 1984	Desipramine not in BNF
Guthrie 2004	Patients from a trial not reported by groups
Halpert 2005	Desipramine not in BNF
Heefner 1978	Desipramine not in BNF
Ladep 2006	Not RCT
Maxton and Whorwell 1991	Not antidepressant intervention
Tanum 2000	Not RCT
Thomas 2000	Case report

E11: ADVERSE EFFECTS

Study	Reason for exclusion
Carling 1989	2-week trial
Connolly 1975	3-week trial
Efskind 1996	No side effects data
Hennessy 1975	2-week trial with each drug (crossover)
Hovdenak 1987	No side effects encountered
Inauen 1994	3-week trial
Page 1981	2-week trial
Tasman-Jones 1973	No adverse effects observed
Wang 2004	2-week trial

E12: RELAXATION

There were not excluded studies for this review

E13: BIOFEEDBACK

Study	Reason for exclusion
Blanchard 1987 (a)	Not said to be randomised
Blanchard 1987 (b)	Not a comparison
Chiarioni 2002	Not a comparison
Chiarioni 1993	Not a comparison
Leahy 1998	Not a comparison
Mimura 2001	Not IBS
Neff 1988	Not randomised; reported long term follow-up of the original study by Neff 1987
Radnitz and Blanchard 1988	Not a comparison
Radnitz and Blanchard 1989	Not a comparison
Rorhböck	Not RCT
Schwarz et al 1986	Not a comparison

E14: PSYCHOTHERAPY

Study	Reason for exclusion
Agency for healthcare research and quaility 2001	Summary report not extractable data
Arn 1989	not RCT
Bennet 1985	No primary data
Corney 1991	Data on CBT
Creed 2005	Not outcome measures and different trial interventions
Jones 2006	Not RCT
Nel 2003	Not RCT
Patrick1998	Not RCT; no control group
Pavan 1982	Not in English
Ritchie 1980	No placebo
Robinson 2006	Support groups only
Wise 1982 (a) and (b)	Not RCT

E15: COGNITIVE BEHAVIOUR THERAPY

Study	Reason for exclusion
Costa 2001	Not RCT; no data reported
Decola 2001	Not RCT
Delvaux 1997	Not RCT
Drossman 2000	Outcome measures did not compare different treatment interventions; not all IBS
Harrell 1978	Not RCT
Lackner 2006	Not RCT
Leahy 2001	Not RCT
Leibbrand 2003	Not all patients had IBS
Meadows 1997	Not RCT
Talley 1996	Not RCT
Taylor 2004	Not RCT
Turner 1998	Not RCT
van Dulmen 1996	Not randomised; all patients with pain but not all had disordered defecation
Wise 1982 a and b	Not RCT

E16: HYPNOTHERAPY

Study	Reason for exclusion
Beaugerie 1991	Not ibs, not rct
Gonsalkorale 2002	Not RCT
Gonsalkorale 2003	Not RCT
Gonsalkorale 2004	Before + after study
Houghton 1996	Not RCT: not randomised
Jones 2006	Not RCT
Lea 2003	Not RCT
Palsson 2006	Not RCT
Phillips-Moore 2006	Not RCT
Prior 1990	Not RCT
Vidakovic-Vukic 1999	Not a comparison
Whorwell 1987a	Follow up of treated cases in Whorwell 1984 + new cases (no control group)
Whorwell 1987b	Description of gut-directed hypnotherapy technique; not a comparison

E17: REFLEXOLOGY

There were not excluded studies for this review

E18: ACUPUNCTURE

Study	Reason for exclusion
Ao	Inappropriate intervention; non-needling
Bolin 1983	Not IBS
Chan 1997	Not RCT
Jia 1999	Not IBS
Klauser 1993	Not IBS; not randomised
Shi 1982	Not IBS
Smart 1986	Survey
Zhu 2003	Not RCT

E19: HERBAL MEDICINE

There were not excluded studies for this review

E21: PSYCHOSOCIAL

Study	Reason for exclusion
Wise 1982a & b	Not RCT

E22: PATIENT INFORMATION

Study	Reason for exclusion
Rees 1994	Inappropriate comparison: IBS + self-help group versus non-IBS

E23: COST-EFFECTIVENESS OF STRATEGIES TO MANAGE IBS: TESTING FOR ALTERNATIVE DIAGNOSES

Study	Reason for exclusion
Atkinson K 1997	Cost minimisation from societal perspective (including cost of gluten free diet). No effectiveness measurement.
Bowron 2000	Not an economic evaluation. UK case series
Cammarota 2006	Not an economic evaluation. Considers change to reference standard for coeliac diagnosis
Fine 2000.	Not an economic evaluaiton. Case-series looking at alternative biopsy strategies.
Harewood 2001	Not an economic evaluation. Cost minimisation.
Harewood 2004	Not an economic evaluation. Case series with costs. Not IBS population
Leffler 2006	Review article only focusing on coeliac disease not IBS.
Li D 2004	Not an economic evaluation. Success of sample taking technique, positive result rate and costs.
Rantis 1997	Not an economic evaluation. Case series with costs
Shamir 2006	Coeliac screening in general population, not IBS population.
Yagil 2005	Not an economic evaluation. Diagnostic yield of seriological tests in patients with one or more clinical complaint suggesting coeliac disesase.

E24: COST-EFFECTIVENESS OF STRATEGIES TO MANAGE IBS: INTERVENTION TO MANAGE IBS

Study	Reason for exclusion
Goettsch 2004	Not an economic evaluation of treatment. Case-control with inadequate comparison populations
Houghton 1996	Not an economic evaluation. Case controlled treatment study with some economic outcomes (GP appointments, time off work).
Hull C 1980	Elderly population with constipation, not relevant to IBS population.
Lederle 1990	Elderly population with constipation, not relevant to IBS population.
Passmore 1995	Review article only. References searched.
Passsmore 1993	Elderly population with constipation, not relevant to IBS population.

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