

The effect of dietary fibre modification and bowel rest on patient and health care outcomes in patients admitted to hospital with acute, uncomplicated diverticulitis: a systematic literature review and meta-analysis

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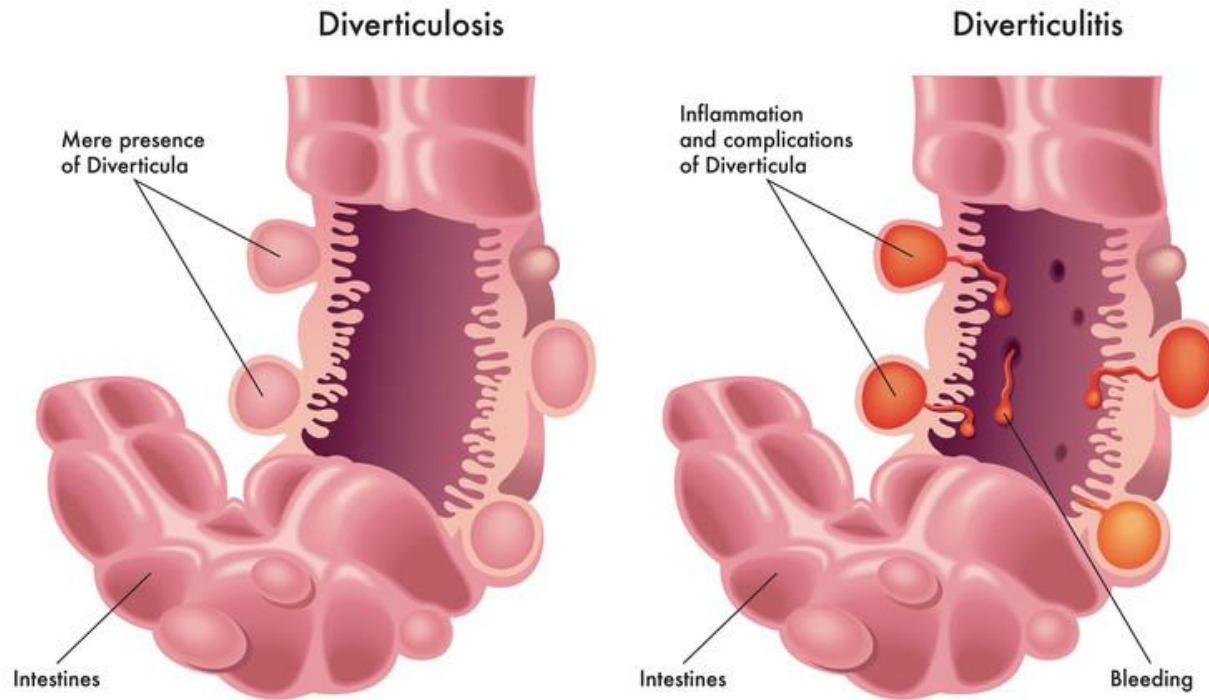
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BRINGING AMBITION TO LIFE

Dietary fibre modification in the recovery and prevention of reoccurrence of acute, uncomplicated diverticulitis: a systematic review and meta-analysis

By **Camilla Dahl**, Megan Crichton, Julie Jenkins, Romina Nucera, Sophie Mahoney, Skye Marshall

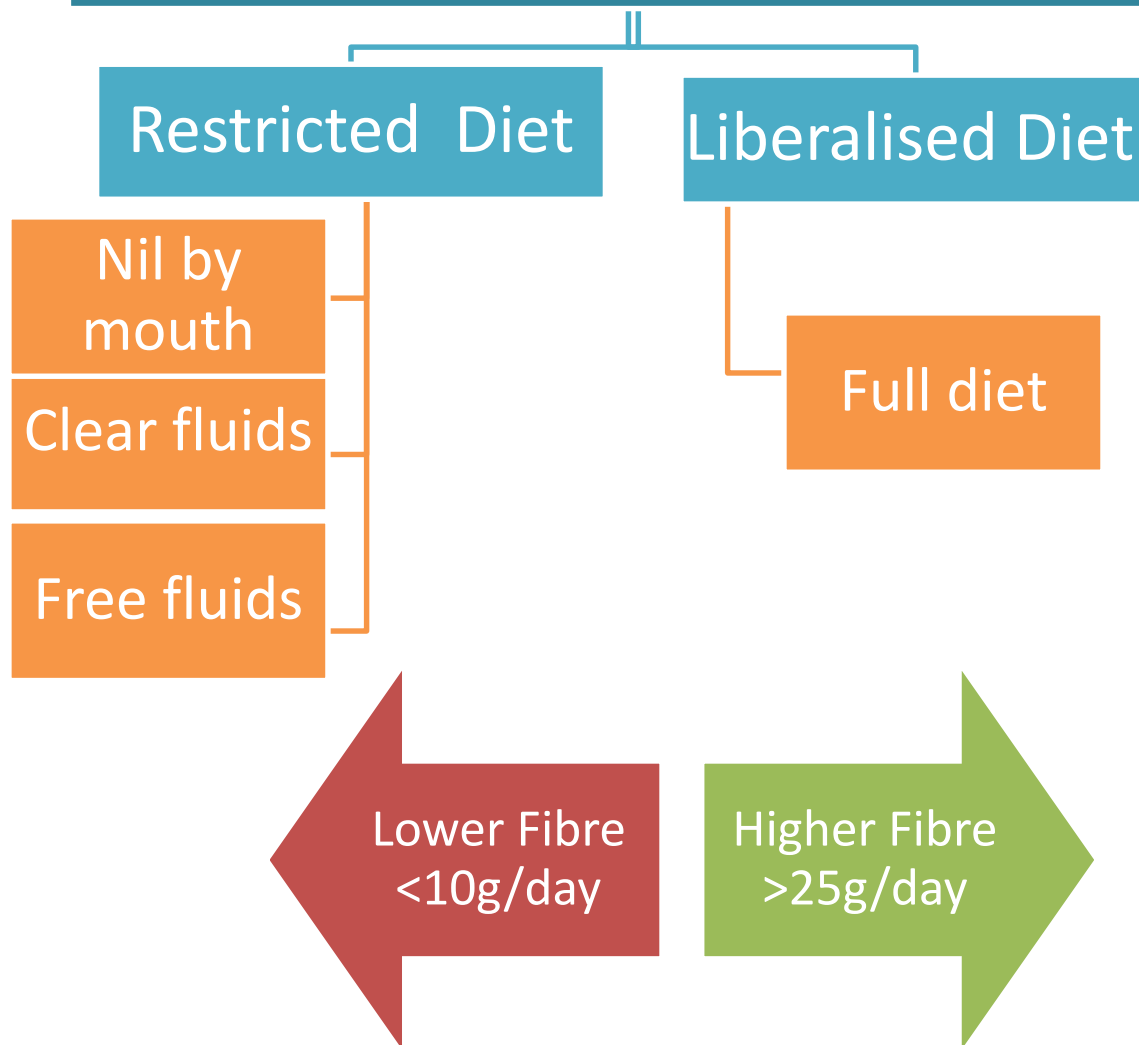


ACUTE UNCOMPLICATED DIVERTICULITIS



Guideline/Statement	Updated	Diet Recommendation
American Gastroenterological Association Institute	2015	No comment
American Society of Colon & Rectal Surgeons	2014	Bowel rest
Italian Society of Colon & Rectal Surgery	2015	No comment
World Society of Emergency Surgery	2015	Dietary restriction is unproven
Danish Surgical Society	2011	Dietary restriction is unproven
World Gastroenterology Organisation	2007	Bowel rest should be used in the first 48 hours

ACUTE, UNCOMPLICATED DIVERTICULITIS

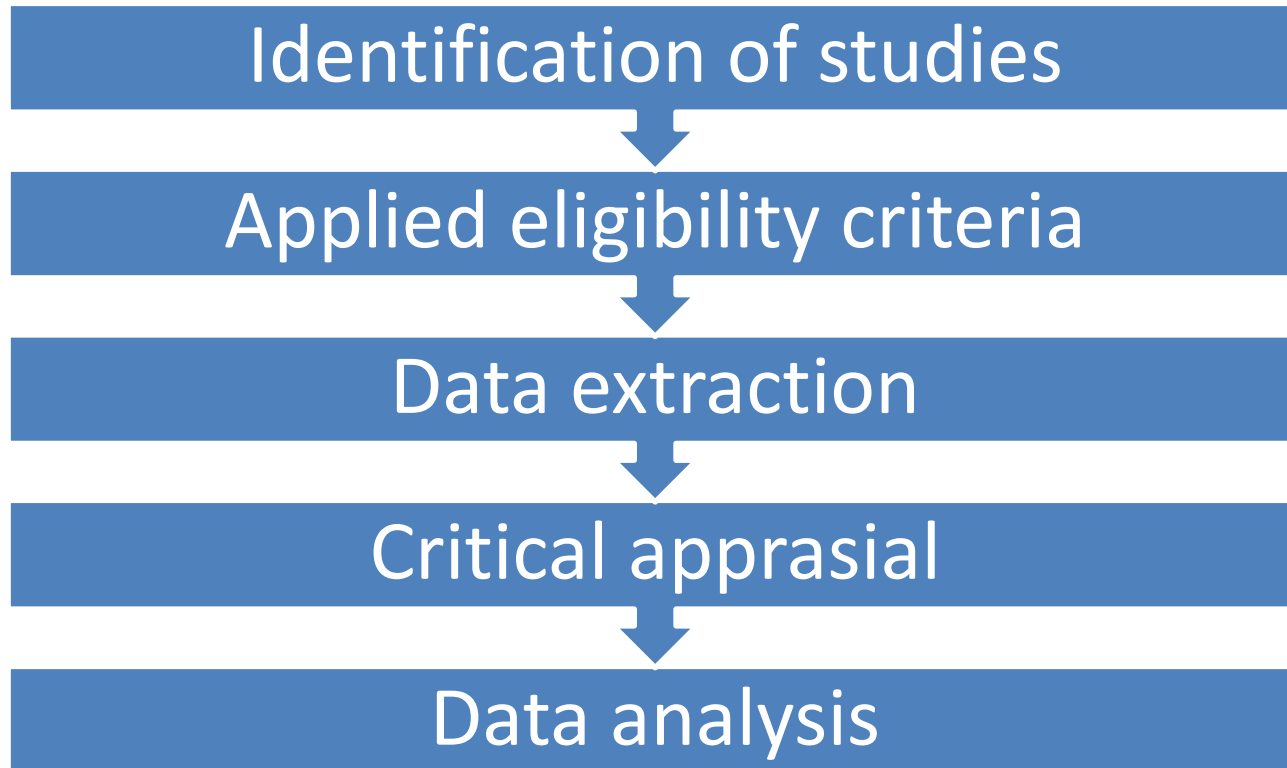


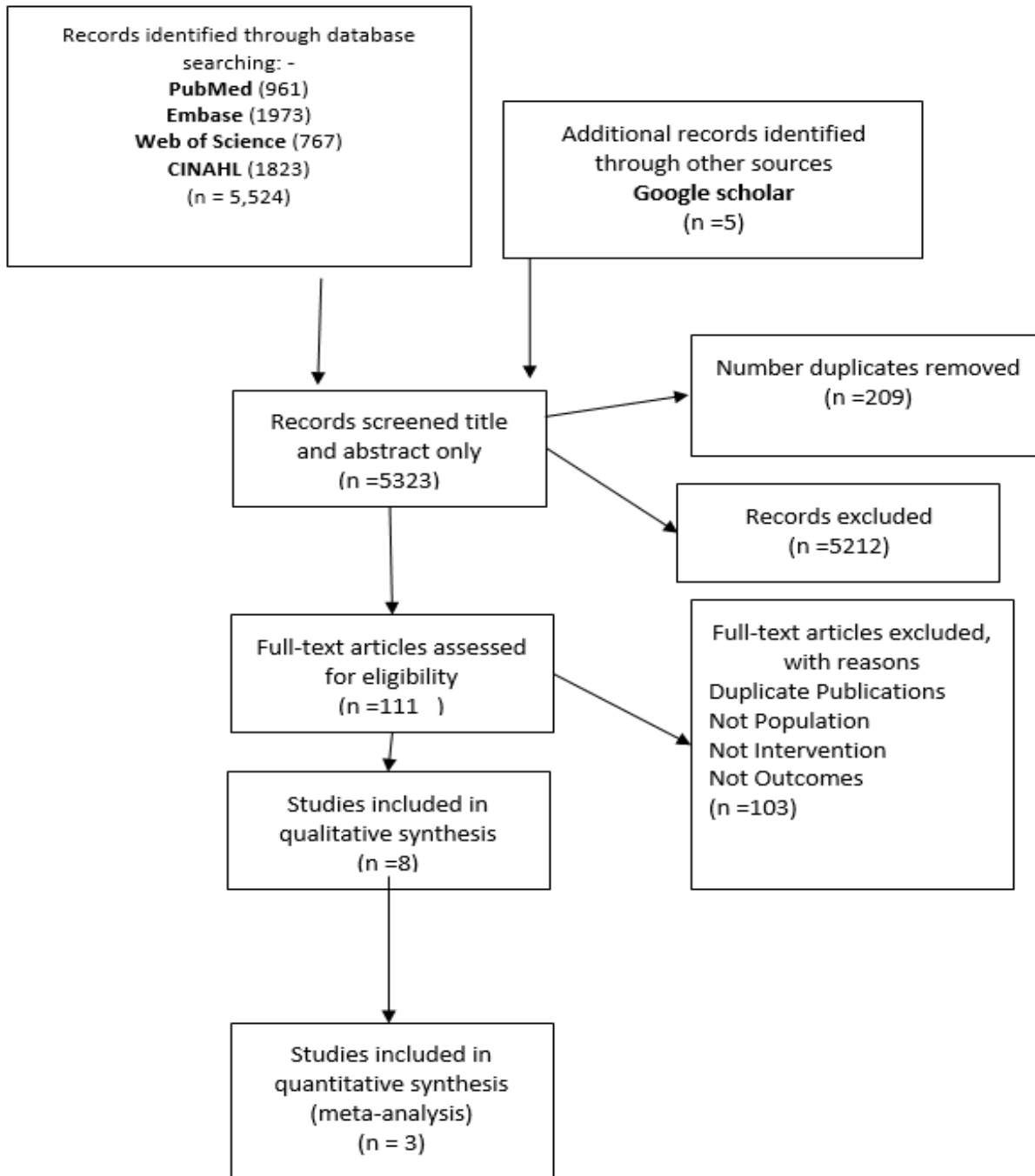


Research Question

The efficacy of *dietary fibre modifications*, either alone or alongside probiotics and antibiotics, versus any comparator on *recovery*, *gastrointestinal symptoms*, *health care use* and *reoccurrence*

COCHRANE METHODS





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Study	Design	LOS result for liberal vs restricted
Ridgway 2009	RCT, n=79	 (lib. Vs bowel rest)
Park 2011	Prospective observational cohort, n=103	 (lib. Vs bowel rest)
Van de Wall 2013	Retrospective observational study, n=92	 (lib. Vs bowel rest)
“ “	“ “, n=116	 (lib. Vs clear liquid)
“ “	“ “, n=102	 (lib. Vs liquid diet)

Change = $P < 0.05$

Length of stay



Reoccurrence

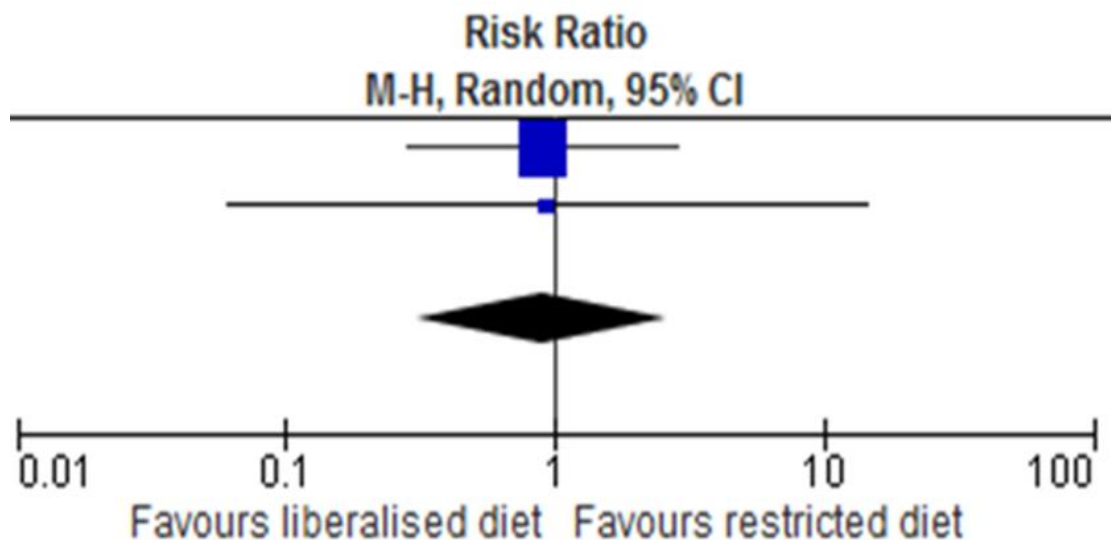
Results:
Lib vs Res

Treatment failure

Gastrointestinal
symptoms

Change = $P < 0.05$

Study	Design	Reoccurrence result for liberal vs restricted
Ridgway 2009	RCT, n=79	 (lib. Vs bowel rest)
Park 2011	Prospective observational cohort, n=103	 (lib. Vs bowel rest)



Length of stay

Reoccurrence

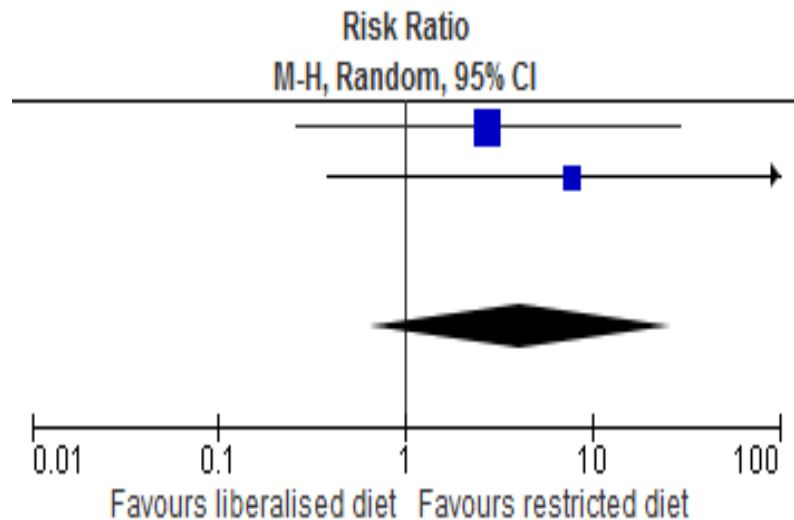
Results:
Lib vs Res

Treatment failure

Gastrointestinal
symptoms

Change = $P < 0.05$

Study	Design	Treatment failure result for liberal vs restricted
Moya 2012	Historical intervention study, n=76	Liberalised diet had fewer failures
Park 2011	Prospective observational cohort, n=103	Restricted had fewer failures



Length of stay




Reoccurrence

Results:
Lib vs Res

Treatment failure

Gastrointestinal
symptoms

Change = $P < 0.05$

Study	Design	GI symptom result for liberal vs restricted
Ridgway 2009	RCT, n=79	 (lib. Vs bowel rest)
Taylor & Duthie 1976	3 arm RCT, n=20	Some improvement in symptoms with each treatment (Higher fibre vs laxative)
Leahy 1985	Retrospective, observational cohort n=56	 (high vs low fibre)
Lanas 2013	RCT, n=165	 (ABX + psyllium vs psyllium)

Liberalised diet (inpatient or outpatient) vs restricted diet (inpatient) (GRADE)

Outcome & hypothesis	Risk of bias (Cochrane)	Inconsistency (heterogeneity)	Indirectness (confidence in effect)	Imprecision	Publication bias	Quality of the body of evidence (GRADE)
Length of stay lower in liberalised diet	Serious	Not serious	Serious	Not serious	N/A	⊕⊕○○ Low
No difference in reoccurrence	Serious	Not serious	Serious	Serious	N/A	⊕○○○ Very low
Both diets safe (low risk of treatment failures)	Serious	Not serious	Not serious	Very serious	N/A	⊕○○○ Very low
No difference in GI symptoms	Serious	N/A	Serious	Serious	N/A	⊕○○○ Very low
No difference in outpatient visits	Very serious	N/A	Serious	N/A	N/A	⊕○○○ Very low



Limitations

Limited confidence in evidence

Confounding variables

Missed studies

Wider outcome reporting



1st to synthesise evidence

Provides guidance

Limited concerns, failures or safety problems in liberalised diet



Benefits

CONCLUSION

There is insufficient evidence to make recommendations;

Dietitians and physicians should use clinical expertise and incorporate patients values and preferences in a patient centered care approach;

More research is needed examining the role of fibre in acute, uncomplicated diverticulitis





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Thank you
Any questions?



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