



STARS Education and Research Alliance

CREATING KNOWLEDGE | TRANSFORMING CARE



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

**Metro North
Health**



**Queensland
Government**

STARS Critically Appraised Topic (CAT) Group: Dietitian-Led Coeliac Clinics (DLCC)

Specific Question:

What is the impact of dietitian-led care for adults with a new diagnosis of coeliac disease or persistently active coeliac disease on health service outcomes (cost of care, re-presentation rate) and patient-related outcomes (time to remission, burden of care) compared to gastroenterologist-led care?

Clinical bottom line

In adults with coeliac disease, dietitian-led models appear to improve service outcomes, including timelier access to diagnosis and nutrition care, fewer gastroenterologist appointments, and avoidance of some repeat endoscopies; however, findings should be interpreted with caution, as evidence comes from observational studies with limited data on long-term outcomes and cost-effectiveness.

Why is this important?

Coeliac disease requires lifelong adherence to a strict gluten-free diet. Delayed diagnosis, delayed access to dietetic education, or inadequate assessment of gluten exposure can lead to persistent symptoms, ongoing intestinal inflammation, avoidable investigations, and increased use of health services.

Traditional models of care often rely on gastroenterologist-led review. In services with long gastroenterology waitlists, dietitian-led or expanded-scope dietitian models may help patients receive more timely care while preserving gastroenterologist capacity for patients with complex, refractory, or unclear disease. Specialist dietitians are well placed to assess dietary adherence, identify inadvertent gluten exposure, provide tailored education, and support behaviour change.

A STARS Dietitian-Led Coeliac Clinic (DLCC) was initiated to reduce the need for gastroenterology clinic appointments at STARS, given a waitlist of 800+ appointments. It was also seen as a way to deliver more consistent and streamlined care. The model considered the DLCC model established at Logan since 2020, as well as local Gastroenterology (GE) services and care preferences. The CAT group was initiated as a step towards identifying what evidence had already been published on dietitian-led care in coeliac disease and to target future publications.

This topic is important because it addresses both patient care and service sustainability. If dietitian-led coeliac services can safely improve access, reduce unnecessary gastroenterologist appointments, and avoid repeat endoscopies, they may offer a more efficient and patient-centred model of care at STARS.

Inclusion Criteria

Studies were eligible for inclusion that describe:

- models of care for managing patients with new diagnosis or persistently active coeliac disease (focused on adults)
 - with dietitian-led models of care
 - in comparison to gastroenterologist (GE), general practitioner (GP) or nurse-led model of care, including clinics, hospital, community and primary care settings
- impact on health service (cost of care, re-presentation rate) and/or patient-related (time to remission, burden of care) outcomes

Search dates

2011-2026

Type of Study

Intervention/service evaluation studies

PICOT

	Description	Search terms
Population and Setting	Adults (16 years +) with new diagnosis of coeliac disease or persistently active coeliac disease Hospital, Clinics, Community, Primary Care	Coeliac / celiac "Celiac Disease"[Mesh] and entry terms (e.g. gluten sensitive enteropathy / sprue) Hospital / Clinics / Community / Primary care
Intervention or Exposure (i.e. what is being tested)	Models of care for management of coeliac disease Dietitian-led care	Coeliac model of care / management / led Dietitian / dietician
Comparison, if any	Medical MoC/led care Nurse-led care	Gastroenterologist (GE) / Gastroenterology/ specialist / consultant General Practitioner / General Practice Nurse Model of care / management / led
Outcomes of interest	Health service (cost of care, representation rate) and/or patient-related (time to remission, burden of care) outcomes. Indicators of success Remission of disease QoL Serology Tissue transglutaminase IGA Total IGA Gliadin IGG Antibodies (+coeliac) Gluten-free diet adherence Normalisation of histology: Histology (biopsy) Villi architecture Intra-epithelial lymphocytes / lymphocytosis Crypto hyperplasia Marsh score (abnormalities)	<i>Search terms for outcomes not included in search, to keep open and reduce bias.</i>
Types of studies	Prioritise higher level evidence	<i>Search terms for specific study types not included in search, to keep open for any type of study reporting on health system or patient-related outcomes of interest.</i> <i>Excluded commentaries, editorials, letters, conference abstracts.</i>

Search strategy, includes key concepts and limits:

Note: This broad search was development to find evidence potentially relevant to the topic, the inclusion criteria were narrowed after the search to focus on dietitian-led models of care for identifying key papers for critical appraisal.

(coeliac) **AND** (professional management – dietitian, medical – GE or GP, or nurse) **AND** (models of care for management of this disease across settings – led, clinics, hospital, community, primary care) **AND** (last 15 years, from 2011-2026 publication year range) **AND** (English language) **NOT** (Animals NOT Humans) **NOT** (editorials, commentaries, letters)

Databases Searched - via Clinical Knowledge Network (CKN)

PubMed, CINAHL Complete, Embase, Cochrane Library

Date of search

21/05/2026

Search Strategies (including subject headings)

PubMed 434 results

Includes [MeSH](#)

("Celiac Disease"[Mesh] OR "coeliac*"[tiab] OR "celiac*"[tiab] OR "gluten enteropath*"[tiab] OR "gluten-sensitive enteropath*"[tiab] OR "gluten sensitive enteropath*"[tiab] OR "sprue"[tiab]) **AND** ("Nutritionists"[Mesh] OR "Dietetics"[Mesh] OR "Gastroenterology"[Mesh] OR "Gastroenterologists"[Mesh] OR "General Practice"[Mesh] OR "General Practitioners"[Mesh] OR "Nurse's Role"[Mesh] OR "Nurses"[Mesh] OR "dietitian*"[tiab] OR "dietician*"[tiab] OR "nutritionist*"[tiab] OR "dietetic*"[tiab] OR "gastroenterolog*"[tiab] OR "specialist*"[tiab] OR "consultant*"[tiab] OR "nurse*"[tiab] OR "general practi*"[tiab] OR "management"[ti]) **AND** ("Primary Health Care"[Mesh] OR "primary care"[tiab] OR "primary health care"[tiab] OR "primary healthcare"[tiab] OR "community"[tiab] OR "hospital"[tiab] OR "led"[tiab] OR "clinic"[tiab] OR "clinics"[tiab] OR "model of care"[tiab] OR "models of care"[tiab]) **AND** (2011:2026[dp]) **AND** (eng[la] OR und[la]) **NOT** (animals [mh] NOT humans [mh]) **NOT** ("Comment"[Publication Type] OR "Editorial"[Publication Type] OR "Letter"[Publication Type])

CINAHL Complete (EBSCOhost) 131 results

Includes [CINAHL Headings](#)

(MH "Celiac Disease+" OR XB("coeliac*" OR "celiac*" OR "gluten enteropath*" OR "gluten-sensitive enteropath*" OR "gluten sensitive enteropath*" OR "sprue")) **AND** (MH "Dietitians" OR MH "Dietetics" OR MH "Gastroenterology Care" OR MH "Gastroenterologists" OR MH "Family Practice" OR MH "Physicians, Family" OR MH "Nursing Role" OR MH "Nurses+" OR XB("dietitian*" OR "dietician*" OR "nutritionist*" OR "dietetic*" OR "gastroenterolog*" OR "specialist*" OR "consultant*" OR "nurse*" OR "general practi*") OR TI("management")) **AND** (MH "Primary Health Care" OR XB("primary care" OR "primary health care" OR "primary healthcare" OR "community" OR "hospital" OR "led" OR "clinic" OR "clinics" OR "model of care" OR "models of care")) **AND** PY 2011-2026 **AND** (LA English) **NOT** ((MH "Animals+" OR MH "Animal Studies" OR TI animal model*) NOT MH "Human") **NOT** (PT("Commentary" OR "Editorial" OR "Letter"))

Embase (Elsevier) 558 results

Includes [Emtree](#)

('celiac disease'/exp OR "coeliac*":ti,ab OR "celiac*":ti,ab OR "gluten enteropath*":ti,ab OR "gluten-sensitive enteropath*":ti,ab OR "gluten sensitive enteropath*":ti,ab OR "sprue":ti,ab) **AND** ('dietitian'/exp OR 'dietetics'/exp OR 'gastroenterology'/exp OR 'gastroenterologist'/exp OR 'general practice'/exp OR 'general practitioner'/exp OR 'nurse attitude'/exp OR 'nursing role'/exp OR 'nurse'/exp OR "dietitian*":ti,ab OR "dietician*":ti,ab OR "nutritionist*":ti,ab OR "dietetic*":ti,ab OR "gastroenterolog*":ti,ab OR "specialist*":ti,ab OR "consultant*":ti,ab OR "nurse*":ti,ab OR "general practi*":ti,ab OR "management":ti) **AND** ('primary health care'/exp OR "primary care":ti,ab OR "primary health care":ti,ab OR "primary healthcare":ti,ab OR "community":ti,ab OR "hospital":ti,ab OR "led":ti,ab OR "clinic":ti,ab OR "clinics":ti,ab OR "model of care":ti,ab OR "models of care":ti,ab) **AND** [2011-2026]/py **AND** [english]/lim **NOT** ('animal experiment'/de NOT ('human experiment'/de OR 'human'/de)) **AND** ('article'/it OR 'article in press'/it OR 'review'/it)

Cochrane Library (Wiley) 66 results (0 Cochrane Reviews, 66 Trials)

Advanced search > Search manager

Includes MeSH, further limited trials to year first published 2011-2026

ID	Search Hits
#1	MeSH descriptor: [Celiac Disease] explode all trees 513
#2	(coeliac* OR celiac* OR (gluten NEXT enteropath*) OR (gluten sensitive NEXT enteropath*) OR "sprue"):ti,ab 1632
#3	#1 OR #2 1707
#4	MeSH descriptor: [Nutritionists] explode all trees 92
#5	MeSH descriptor: [Dietetics] explode all trees 130
#6	MeSH descriptor: [Gastroenterology] explode all trees 139
#7	MeSH descriptor: [Gastroenterologists] explode all trees 33
#8	MeSH descriptor: [General Practice] explode all trees 3115
#9	MeSH descriptor: [General Practitioners] explode all trees 631
#10	MeSH descriptor: [Nurse's Role] explode all trees 610
#11	MeSH descriptor: [Nurses] explode all trees 1863
#12	(dietitian* OR dietician* OR nutritionist* OR dietetic* OR gastroenterolog* OR specialist* OR consultant* OR nurse* OR (general NEXT practi*)):ti,ab 73089
#13	("management"):ti 54793
#14	#4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 124230
#15	MeSH descriptor: [Primary Health Care] explode all trees 12618
#16	("primary care" OR "primary health care" OR "primary healthcare" OR "community" OR "hospital" OR "led" OR "clinic" OR "clinics" OR "model of care" OR "models of care"):ti,ab 356628
#17	#15 OR #16 359115
#18	#3 AND #14 AND #17 with Cochrane Library publication date from Jan 2011 to present 68

Advanced Search

[Search](#)
[Search manager](#)
[Medical terms \(MeSH\)](#)
[PICO search](#)

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[View fewer lines](#)
[Print search history](#)

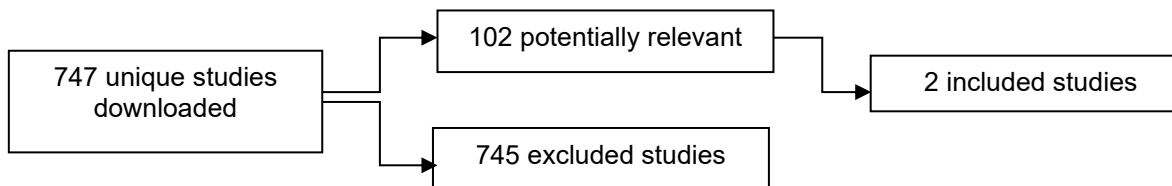
+			
-	+	#1	MeSH descriptor: [Celiac Disease] explode all trees MeSH 513
-	+	#2	(coeliac* OR celiac* OR (gluten NEXT enteropath*) OR (gluten sensitive NEXT enteropath*) OR "sprue"):ti,ab Limits 1632
-	+	#3	#1 OR #2 Limits 1707
-	+	#4	MeSH descriptor: [Nutritionists] explode all trees MeSH 92
-	+	#5	MeSH descriptor: [Dietetics] explode all trees MeSH 130
-	+	#6	MeSH descriptor: [Gastroenterology] explode all trees MeSH 139
-	+	#7	MeSH descriptor: [Gastroenterologists] explode all trees MeSH 33
-	+	#8	MeSH descriptor: [General Practice] explode all trees MeSH 3115
-	+	#9	MeSH descriptor: [General Practitioners] explode all trees MeSH 631
-	+	#10	MeSH descriptor: [Nurse's Role] explode all trees MeSH 610
-	+	#11	MeSH descriptor: [Nurses] explode all trees MeSH 1863
-	+	#12	(dietitian* OR dietician* OR nutritionist* OR dietetic* OR gastroenterolog* OR specialist* OR consultant* OR nurse* OR (general NEXT practi*)):ti,ab Limits 73089
-	+	#13	("management"):ti Limits 54793
-	+	#14	#4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 Limits 124230
-	+	#15	MeSH descriptor: [Primary Health Care] explode all trees MeSH 12618
-	+	#16	("primary care" OR "primary health care" OR "primary healthcare" OR "community" OR "hospital" OR "led" OR "clinic" OR "clinics" OR "model of care" OR "models of care"):ti,ab Limits 356628
-	+	#17	#15 OR #16 Limits 359115
-	+	#18	#3 AND #14 AND #17 Limits 68

with Cochrane Library publication date from Jan 2011 to present

Search process

Developed search in PubMed and translated for other health databases. Exported results to EndNote Library. Removed duplicates using the Deduplicator tool (Relaxed Algorithm) in The Evidence Review Accelerator (TERA) - <https://tera-tools.com/> . Imported 747 deduplicated results into new EndNote Library for identifying potentially relevant results. For potentially relevant results, copied formatted references in an annotated style into Word document for CAT Group to select studies for critical appraisal.

Results



Two selected sources

Palmer M, MacDermott P, Patel B, McIvor C, Purcell L. *Does A Dietitian-Led Celiac Disease Clinic (DLCC) Facilitate Timely Diagnosis and Nutrition Care for Patients With Celiac Disease?* J Gastroenterol Hepatol. 2025 Aug;40(8):1899-1909. doi: 10.1111/jgh.17011. Epub 2025 May 27. PMID: 40421500.

Costas-Batlle C, Trott N, Jeanes Y, Seamark L, Gardiner C. *A dietitian-led coeliac service helps to identify and reduce involuntary gluten ingestion with subsequent reduction in the frequency of repeat endoscopies.* J Hum Nutr Diet. 2023 Oct;36(5):1751-1759. doi: 10.1111/jhn.13206. Epub 2023 Jul 27. PMID: 37497810.

First Author, year and type of study	Population and setting	Intervention or exposure tested	Study results	Assessment of quality and comments
Palmer M, 2025. Pre-test/Post-test of usual care cf. DLCC (dietitian-led coeliac clinic)	Adults, new CD, Metro Teaching Hospital, SEQ Australia Pre-DLCC Aug 2018 – Oct 2019 Post-DLCC Jan 2020 – March 2021	DN-led CD (DLCC) implemented in Jan 2020 Aim = compare time to CD Dx and Tx, and proportion of Pts offered Gastro appt between previous (pre-DLCC) and DLCC (post-DLCC) clinics. Primary outcome: # days from triage of gastro referral to endoscopy for CD Dx and the first DN appt for ed (post-Dx). Proportion of Pts offered Gastro appt between triage of gastro referral until 24 mths after first DN appt. Secondary: demo, medical Hx, Anthro, pathology, Ix, wait time, referral, Tx, D/C data, gastro appt, clinical symp, dietary data.	N = 54 (minus Nurse led pts) Time to Tx commence improved by 404 days (not nurse-led), reduced time observed in both time to Dx and Tx. 36% fewer post-DLCC pts offered Gastro appts. All DLCC Pts reported satisfaction with clinic	Setting is relevant to STARS Small sample; non RCT (pre/post) More missing in non DLCC grp Poor response to Pt satisfaction Qu DNAs excluded (selective, non-rep sample) COVID
Costas-Batlle C, 2023	Adults, persistent CD, Teaching	Newly established adult DN led coeliac service.	N = 170 DN identified lower adherence to GFD (39%)	Setting less relevant to STARS

Observational prospective longitudinal service evaluation	hospital, NHS, Bradford UK Initial: 1 Jan 2019 – 31 Dec 2019 w 2y F/U	Aim = impact of DN led CD service on GFD adherence + frequency of endos with repeat duodenal biopsies Collected from medical records Outcomes = GFD adherence (via 4 methods), unnecessary duodenal biopsies	DN vs 72% gastro nurse vs 57% self-report) DN identified involuntary gluten consumption among 38% self-reporting GFD adherence, avoiding 9 endos with repeat duodenal biopsies. F/U in DN clinic showed fewer involuntarily consuming gluten. DN clinic identifies involuntary gluten consumption, avoid repeat endos and improves GFD adherence	no comparison/randomisation or adjustment Query cf. of GFD adherence with the previous gastro nurse Only F/U attendees included (potential bias) Possible bias if DN could see the biopsy result COVID
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Summary

Two observational service evaluations were included for this CAT.

Costas-Battle et al. (2023) evaluated a UK dietitian-led coeliac clinic for adults with established coeliac disease (CD). Specialist dietitian assessment identified more gluten-free diet non-adherence than previous nurse assessments, patient self-reports, or validated adherence questionnaires. The clinic was associated with reduced involuntary gluten ingestion and avoiding 9 repeat endoscopies after dietitian assessment and education.

Palmer et al. (2025) evaluated an Australian expanded scope dietitian-led coeliac disease clinic for adults with newly diagnosed coeliac disease. Compared with previous care (gastroenterologist-led/nurse-led models), the dietitian-led model reduced the time from referral to diagnosis and dietetic education, reduced the number of gastroenterologist appointments, and was associated with higher patient satisfaction among respondents who completed the survey.

Overall, the studies suggest that dietitian-led CD may improve access, reduce use of gastroenterology services, and support adherence to a gluten-free diet. However, both studies were observational service evaluations, and sampling methods may have introduced bias, so the findings should be interpreted with caution.

Implications for Practice/research

Dietitian-led CD care appears to be a promising model for improving access to diagnosis, nutrition education, and specialist dietary review, while reducing demand for gastroenterologist appointments and potentially avoiding repeat endoscopies. Local implementation should include clear eligibility criteria, governance, escalation pathways to gastroenterology, and an audit of safety, re-presentation, patient experience and outcomes.

Further research is needed to evaluate:

- Longer-term outcomes, including remission, gluten-free adherence, symptoms, re-presentation, patient burden and cost.
- Patient experiences and satisfaction
- Describe the implementation of hybrid or virtual dietitian-led CD clinics, including workflows, reach, convenience, staffing, and cost.

- Potentially staff experience (GE, dietitian, GP), patient quality of life and for long-term outcomes, add follow-up rates (including serology monitoring, BMD monitoring, results of repeat endoscopy).

What would you share on socials? (140 characters)

Dietitian-led coeliac care may improve access, reduce wait time and demand on gastroenterologists — but long-term outcomes, patient experience, and costs need further study.

Critical Appraisal Topic Group Team Members

Katrina Tognolini (Dietitian Team Leader/STARS Dietetics) – **Clinical Lead**

Amanda Adams (Director Dietetics and Food Services/STARS Allied Health)

Ashleigh Molenaar (Dietitian Senior/STARS Dietetics)

Hannah Olfuson (Dietitian Senior/STARS Dietetics)

Jessica Bolte (Clinical Nurse Research Gastroenterology/STARS Ambulatory Services Nursing)

Richard Fernandes (Staff Specialist Gastroenterology/STARS Gastroenterology SMO VMO)

Natalie Barker (UQ Research Librarian/UQ Library - Faculty of Health, Medicine and Behavioural Sciences)

Kimberley Baxter (Project Officer Research Consumer Engagement/STARS SERA) – **SERA Coordinator**

CAT group meeting dates

14/05/2026, 04/06/2026

References

Costas-Battle C, Trott N, Jeanes Y, Seemark L, Gardiner C. *A dietitian-led coeliac service helps to identify and reduce involuntary gluten ingestion with subsequent reduction in the frequency of repeat endoscopies*. J Hum Nutr Diet. 2023 Oct;36(5):1751-1759. doi: 10.1111/jhn.13206. Epub 2023 Jul 27. PMID: 37497810.

Palmer M, MacDermott P, Patel B, McIvor C, Purcell L. *Does A Dietitian-Led Celiac Disease Clinic (DLCC) Facilitate Timely Diagnosis and Nutrition Care for Patients With Celiac Disease?* J Gastroenterol Hepatol. 2025 Aug;40(8):1899-1909. doi: 10.1111/jgh.17011. Epub 2025 May 27. PMID: 40421500.