Effect of oral nutritional supplements with or without nutritional counselling on

mortality, treatment tolerance, and quality of life in head and neck cancer patients

receiving (chemo)radiotherapy: a systematic review and meta-analysis

Mello et al. (2020)

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Table S1. Search strategies

N° Search terms

Medline (PubMed)

- #1 "Head and Neck Neoplasms"[mh]
- #2 "Otorhinolaryngologic Neoplasms"[mh]
- #3 head[tiab] OR neck[tiab] OR face[tiab] OR facial[tiab] OR thyroid[tiab] OR parathyroid[tiab]
 OR salivary[tiab] OR paranasal[tiab] OR "aero digestive"[tiab] OR aerodigestive[tiab] OR aero digestive[tiab] OR UADT[tiab] OR otorhinolaryngologic[tiab] OR tracheal[tiab] OR larynx[tiab]
 OR laryngeal[tiab] OR glottis[tiab] OR glottic[tiab] OR "oral cavity"[tiab] OR
 nasopharynx[tiab] OR nasopharyngeal[tiab] OR hypopharynx[tiab] OR hypopharyngeal[tiab]
 OR pharynx[tiab] OR pharyngeal[tiab] OR para-pharyngeal[tiab] OR mouth[tiab] OR oral[tiab]
 OR gingival[tiab] OR gingiva[tiab] OR lip[tiab] OR palatal[tiab] OR palate[tiab] OR
- #4 "Neoplasms"[mh]
- #5 cancer*[tiab] OR carcinoma*[tiab] OR neoplasm*[tiab] OR tumor*[tiab] OR tumour*[tiab] OR metastas*[tiab] OR neoplasia*[tiab] OR malignan*[tiab]
- #6 #4 OR #5
- #7 #3 AND #6
- #8 #1 OR #2 OR #7
- #9 "Antineoplastic Protocols"[mh]
- #10 "Antineoplastic Agents"[mh]
- #11 "Radiotherapy"[mh]
- #12 "Chemoradiotherapy"[mh]
- #13 "Molecular Targeted Therapy"[mh]
- #14 cetuximab[tiab] OR erlotinib[tiab] OR bevacuzimab[tiab] OR bevacizumab[tiab] OR panitumumab[tiab] OR trastuzumab[tiab] OR chemotherap*[tiab] OR chemoradiotherap*[tiab] OR chemo-radiotherap*[tiab] OR radiotherap*[tiab] OR radiochemotherap*[tiab] OR radiochem
- #15 #9 OR #10 OR #11 OR #12 OR #13 OR #14
- #16 "Nutrition Therapy"[mh]
- #17 "Nutritional Support"[Mesh:NoExp]
- #18 "Enteral Nutrition"[mh]
- #19 "Dietary Supplements"[mh]
- #20 "Food, Formulated"[mh]

- #21 "Diet Therapy"[mh]
- #22 "Food, Fortified"[mh]
- #23 #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22
- #24 formulat*[tiab] OR supplement*[tiab] OR enriched[tiab] OR sip[tiab] OR oral[tiab] OR enteral[tiab] OR therap*[tiab] OR support[tiab]
- #25 diet*[tiab] OR feed*[tiab] OR food*[tiab] OR nutrit*[tiab]
- #26 #24 AND #25
- #27 #23 OR #26
- #28 randomized controlled trial [pt]
- #29 controlled clinical trial [pt]
- #30 randomized [tiab]
- #31 placebo [tiab]
- #32 drug therapy [sh]
- #33 randomly [tiab]
- #34 trial [tiab]
- #35 groups [tiab]
- #36 #28 OR #29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35
- #37 animals [mh] NOT humans [mh]
- #38 #36 NOT #37
- #39 #8 AND #15 AND #27 AND #38

Embase

- #1 'head and neck tumor"/exp
- #2 'head and neck cancer'/exp
- #3 head:ab,ti OR neck:ab,ti OR face:ab,ti OR facial:ab,ti OR thyroid:ab,ti OR parathyroid:ab,ti OR salivary:ab,ti OR paranasal:ab,ti OR aerodigestive:ab,ti OR 'aero digestive':ab,ti OR uadt:ab,ti OR otorhinolaryngologic:ab,ti OR tracheal:ab,ti OR larynx:ab,ti OR laryngeal:ab,ti OR glottis:ab,ti OR glottic:ab,ti OR 'oral cavity':ab,ti OR nasopharynx:ab,ti OR nasopharyngeal:ab,ti OR hypopharyngeal:ab,ti OR pharynx:ab,ti OR pharyngeal:ab,ti OR 'para pharyngeal':ab,ti OR mouth:ab,ti OR oral:ab,ti OR gingiva:ab,ti OR lip:ab,ti OR lip:ab,ti OR palate:ab,ti OR palate:ab,ti OR tongue:ab,ti
- #4 'neoplasm'/exp
- #5 cancer*:ab,ti OR carcinoma*:ab,ti OR neoplasm*:ab,ti OR tumor*:ab,ti OR tumour*:ab,ti OR metastas*:ab,ti OR neoplasia*:ab,ti OR malignan*:ab,ti
- #6 #4 OR #5
- #7 #3 AND #6

- #8 #1 OR #2 OR #7
- #9 'chemotherapy'/exp
- #10 'antineoplastic agent'/exp
- #11 'radiotherapy'/exp
- #12 'chemoradiotherapy'/exp
- #13 'molecularly targeted therapy'/exp
- #14 cetuximab:ab,ti OR erlotinib:ab,ti OR bevacuzimab:ab,ti OR bevacizumab:ab,ti OR panitumumab:ab,ti OR trastuzumab:ab,ti OR chemotherap*:ab,ti OR chemoradiotherap*:ab,ti OR 'chemo radiotherap*':ab,ti OR radiotherap*:ab,ti OR radiochemotherap*:ab,ti OR 'radio chemotherap*':ab,ti OR 'molecular targeted therapy':ab,ti OR 'molecular targeted therapy':ab,ti OR antineoplastic*:ab,ti OR antitumor:ab,ti OR antitumour:ab,ti OR anticancer:ab,ti
- #15 #9 OR #10 OR #11 OR #12 OR #13 OR #14
- #16 'diet therapy'/exp
- #17 'nutritional support'/exp
- #18 'enteric feeding'/exp
- #19 'dietary supplement'/exp
- #20 'nutrition supplement'/exp
- #21 'oral nutritional supplement'/exp
- #22 'fortified food'/exp
- #23 #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22
- #24 formulat*:ab,ti OR supplement*:ab,ti OR enriched:ab,ti OR sip:ab,ti OR oral:ab,ti OR enteral:ab,ti OR therap*:ab,ti OR support:ab,ti
- #25 diet*:ab,ti OR feed*:ab,ti OR food*:ab,ti OR nutrit*:ab,ti
- #26 #24 AND #25
- #27 #23 OR #26
- #28 'randomized controlled trial'/exp
- #29 'controlled clinical trial'/exp
- #30 random*:ab,ti
- #31 'randomization'/exp
- #32 'intermethod comparison'/exp
- #33 placebo:ab,ti
- #34 compare:ti OR compared:ti OR comparison:ti
- #35 (evaluated:ab OR evaluate:ab OR evaluating:ab OR assessed:ab OR assess:ab) AND (compare:ab OR compared:ab OR comparing:ab OR comparison:ab)
- #36 (open NEXT/1 label):ab,ti
- #37 ((double OR single OR doubly OR singly) NEXT/1 (blind OR blinded OR blindly)):ab,ti

- #38 'double blind procedure'/exp
- #39 (crossover:ab,ti OR cross:ab,ti) AND over:ab,ti
- #40 ((assign* OR match OR matched OR allocation) NEXT/5 (alternate OR group? OR intervention? OR patient? OR subject? OR participant?)):ab,ti
- #41 parallel AND group?:ab,ti
- #42 assigned:ab,ti OR allocated:ab,ti
- #43 (controlled NEXT/7 (study OR design OR trial)):ab,ti
- #44 volunteer:ab,ti OR volunteers:ab,ti
- #45 'human experiment'/exp
- #46 trial:ti
- #47 #28 OR #29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36 OR #37 OR #38 OR #39 OR #40 OR #41 OR #42 OR #43 OR #44 OR #45 OR #46
- #48 (random* NEXT/1 sampl* NEXT/7 ('cross section*' OR questionnaire? OR survey* OR database?)):ab,ti
- #49 ((comparative AND 'study'/exp OR controlled) AND 'study'/exp OR randomi?ed) AND controlled:ab,ti OR 'randomly assigned':ab,ti
- #50 #48 NOT #49
- #51 'cross-sectional study'/exp NOT ((('randomized controlled trial'/exp OR 'controlled clinical study'/exp OR 'controlled study'/exp OR randomi?ed) AND controlled:ab,ti OR control) AND group?:ab,ti)
- #52 ((case NEXT/1 control*):ab,ti) AND random*:ab,ti NOT randomi?ed:ab,ti AND controlled:ab,ti
- #53 systematic AND review:ti NOT (trial:ti OR study:ti)
- #54 nonrandom*:ab,ti NOT random*:ab,ti
- #55 'random field*':ab,ti
- #56 random:ab,ti AND ((cluster NEXT/3 sampl*):ab,ti)
- #57 review:ab AND review/it NOT trial:ti
- #58 'we searched':ab AND (review:ti OR review/it)
- #59 'update review':ab
- #60 (databases NEXT/4 searched):ab
- #61 (rat:ti OR rats:ti OR mouse:ti OR mice:ti OR swine:ti OR porcine:ti OR murine:ti OR sheep:ti OR lambs:ti OR pigs:ti OR piglets:ti OR rabbit:ti OR rabbits:ti OR cat:ti OR cats:ti OR dog:ti OR dogs:ti OR cattle:ti OR bovine:ti OR monkey:ti OR monkeys:ti OR trout:ti OR marmoset?:ti) AND 'animal experiment'/exp
- #62 'animal experiment'/exp NOT ('human experiment'/exp OR 'human'/exp)
- #63 #50 OR #51 OR #52 OR #53 OR #54 OR #55 OR #56 OR #57 OR #58 OR #59 OR #60 OR #61 OR #62

#64 #47 NOT #63

#65 #8 AND #15 AND #27 AND #64

CENTRAL

#1	[mh "Head and Neck Neoplasms"]
#2	[mh "Otorhinolaryngologic Neoplasms"]
#3	(head OR neck OR face OR facial OR thyroid OR parathyroid OR salivary OR paranasal OR "aero
	digestive" OR aerodigestive OR aero-digestive OR UADT OR otorhinolaryngologic OR tracheal OR
	larynx OR laryngeal OR glottis OR glottic OR "oral cavity" OR nasopharynx OR nasopharyngeal OR
	hypopharynx OR hypopharyngeal OR pharynx OR pharyngeal OR para-pharyngeal OR mouth OR oral
	OR gingival OR gingiva OR lip OR palatal OR palate OR tongue):ti,ab,kw
#4	[mh neoplasms]
#5	(cancer* or carcinoma* or neoplasm* or tumor* or tumour* or metastas* or neoplasia*):ti,ab,kw
#6	#4 OR #5
#7	#3 AND #6
#8	#1 OR #2 OR #7
#9	[mh "Antineoplastic Protocols"]
#10	[mh "Antineoplastic Agents"]
#11	[mh Radiotherapy]
#12	[mh "Chemoradiotherapy"]
#13	[mh "Molecular Targeted Therapy"]
#14	(cetuximab OR erlotinib OR bevacuzimab OR bevacizumab OR panitumumab OR trastuzumab OR
	chemotherap* OR chemoradiotherap* OR chemo-radiotherap* OR radiotherap* OR radiochemotherap*
	OR radio-chemotherap* OR "molecular targeted therapy" OR "molecular targeted therapies" OR
	antineoplastic* OR antitumor OR antitumour OR anticancer):ti,ab,kw
#15	{OR #9-#14}
#16	[mh "Nutrition Therapy"]
#17	[mh ^"Nutritional Support"]
#18	[mh "Enteral Nutrition"]
#19	[mh "Dietary Supplements"]
#20	[mh "Food, Formulated"]
#21	[mh "Diet Therapy"]
#22	[mh "Food, Fortified"]
#23	{OR #16-#22}
#24	(formulat* OR supplement* OR enriched OR sip OR oral OR enteral OR therap* OR support):ti,ab,kw
#25	(diet* OR feed* OR food* OR nutrit*):ti,ab,kw
#26	#24 AND #25
#27	#23 OR #26

#28 #8 AND #15 AND #27

CINAHL

S1

S2

AHL	
(MH "Head and Neck Neoplasms+")	
(MH "Otorhinolaryngologic Neoplasms+")	

- S3 head OR neck OR face OR facial OR thyroid OR parathyroid OR salivary OR paranasal OR "aero digestive" OR aerodigestive OR aero-digestive OR UADT OR otorhinolaryngologic OR tracheal OR larynx OR laryngeal OR glottis OR glottic OR "oral cavity" OR nasopharynx OR nasopharyngeal OR hypopharynx OR hypopharyngeal OR pharynx OR pharyngeal OR para-pharyngeal OR mouth OR oral OR gingival OR gingiva OR lip OR palatal OR palate OR tongue
- S4 (MH "Neoplasms+")
- S5 cancer* OR carcinoma* OR neoplasm* OR tumor* OR tumour* OR metastas* OR neoplasia* OR malignan*
- S6 S4 OR S5
- S7 S3 AND S6
- S8 S1 OR S2 OR S7
- S9 (MH "Antineoplastic Protocols+")
- S10 (MH "Antineoplastic Agents+")
- S11 (MH "Radiotherapy+")
- S12 (MH "Chemoradiotherapy+")
- S13 (MH "Molecular Targeted Therapy+")
- S14 cetuximab OR erlotinib OR bevacuzimab OR bevacizumab OR panitumumab OR trastuzumab OR chemotherap* OR chemoradiotherap* OR chemo-radiotherap* OR radiotherap* OR radiochemotherap* OR radio-chemotherap* OR "molecular targeted therapy" OR "molecular targeted therapies" OR antineoplastic* OR antitumor OR antitumour OR anticancer
- S15 S9 OR S10 OR S11 OR S12 OR S13 OR S14
- S16 (MW "Nutrition Therapy+")
- S17 (MH "Nutritional Support")
- S18 (MH "Enteral Nutrition+")
- S19 (MH "Dietary Supplements+")
- S20 (MH "Food, Formulated+")
- S21 (MH "Diet Therapy+")
- S22 (MH "Food, Fortified+")
- S23 S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22
- S24 formulat* OR supplement* OR enriched OR sip OR oral OR enteral OR therap* OR support
- S25 diet* OR feed* OR food* OR nutrit*
- S26 S24 AND S25
- S27 S23 OR S26
- S28 (MH "Clinical Trials+")
- S29 PT Clinical trial

- S30 TX clinic* n1 trial*
- S31 TX ((singl* n1 blind*) or (singl* n1 mask*)) or TX ((doubl* n1 blind*) or (doubl* n1 mask*)) or TX ((tripl* n1 blind*) or (tripl* n1 mask*)) or TX ((trebl* n1 blind*) or (trebl* n1 mask*))
- S32 TX randomi* control* trial*
- S33 (MH "Random Assignment")
- S34 TX random* allocat*
- S35 TX placebo*
- S36 (MH "Placebos")
- S37 (MH "Quantitative Studies")
- S38 TX allocat* random*
- S39 S28 OR S29 OR S30 OR S31 OR S32 OR S33 OR S34 OR S35 OR S36 OR S37 OR S38
- S40 S8 AND S15 AND S27 AND S39

Web of Science

#1 TS=(((formulat* OR supplement* OR enriched OR sip OR oral OR enteral OR therap* OR support) AND (diet* OR feed* OR food* OR nutrit*)) AND (cetuximab OR erlotinib OR bevacuzimab OR bevacizumab OR panitumumab OR trastuzumab OR chemotherap* OR chemoradiotherap* OR chemo-radiotherap* OR radiochemotherap* OR radio-chemotherap* OR "molecular targeted therapies" OR antineoplastic* OR antitumor OR antitumour OR anticancer) AND ((head OR neck OR face OR facial OR thyroid OR parathyroid OR salivary OR paranasal OR "aero digestive" OR aerodigestive OR aero-digestive OR UADT OR otorhinolaryngologic OR tracheal OR larynx OR laryngeal OR glottis OR glottic OR "oral cavity" OR nasopharynx OR nasopharyngeal OR hypopharynx OR hypopharyngeal OR pharynx OR palate OR tongue) AND (cancer* OR carcinoma* OR neoplasm* OR tumor* OR tumour* OR metastas* OR neoplasia* OR malignan*)))

Lilacs (BVS)

#1 (tw:(mh:("Head and Neck Neoplasms") OR mh:("Otorhinolaryngologic Neoplasms") OR ((head OR neck OR cabeça OR pescoço OR cabeza OR cuello OR tracheal OR traqueal OR traqueia OR tráquea OR larynx OR laryngeal OR laringe OR laríngeo OR glottis OR glotis OR glote OR glottic OR glótic* OR "oral cavity" OR "cavidade oral" OR "cavidade bucal" OR "cavidad bucal" OR "cavidad oral" OR nasopharynx OR nasofaringe OR rinofaringe OR cóana* OR cóano* OR coana* OR nasopharyngeal OR nasofarínge* OR hypopharynx OR hipofaringe OR laringofaringe OR laringe* OR hypopharyngeal OR hipofaringe* OR pharynx OR faringe OR garganta OR pharyngeal OR farínge* OR para-pharyngeal OR parafarínge* OR mouth OR boca OR oral OR bucal* OR gingiva OR gengiva OR encía OR gingival OR gengival OR gingival OR lip OR lábio OR labio OR or OR palate OR palato OR paladar OR palatal OR palatinos OR palato OR tongue OR língua OR lengua OR face OR cara OR facial OR thyroid OR tireoide OR tiroides OR parathyroid OR paratireoides OR paratiroides OR salivary OR salivares OR salivales OR paranasal OR paranasals OR paranasales OR "aero digestive" OR aerodigestive OR aero-digestive OR uadt OR aerodigestivo OR otorhinolaryngologic OR otorrinolaringológic*) AND

((mh:(neoplasms) OR cancer* OR carcinoma* OR neoplasm* OR tumor* OR tumour* OR metastas* OR neoplasia* OR câncer* OR cáncer* OR cancro* OR neoplasma* OR tumor* OR malignan* OR malignidad*))))) AND (tw:(mh:("Antineoplastic Protocols") OR mh:("Antineoplastic Agents") OR mh:(radiotherapy) OR mh:(chemoradiotherapy) OR mh:("Molecular Targeted Therapy") OR (cetuximab OR erlotinib OR bevacuzimab OR bevacizumab OR panitumumab OR trastuzumab OR chemotherap* OR quimiotratamento* OR farmacotratamento* OR quimiotratamiento* OR chemoradiotherap* OR quimioradioterapia* OR quimiorradioterapia* OR chemo-radiotherap* OR radiotherap* OR radiocerapia OR radiación OR radiochemotherap* OR radio-chemotherap* OR "molecular targeted therapy" OR "molecular targeted therapies" OR "terapia molecular dirigida" OR "terapia de alvo molecular" OR "tratamiento molecular dirigido" OR "tratamiento molecular selectivo" OR "terapia alvo molecular" OR "terapia alvo-molecular" OR "terapia molecular alvo-dirigida" OR "terapia molecular dirigida" OR "tratamento molecular dirigido" OR "tratamento molecular seletivo" OR antineoplastic* OR antineoplásico* OR antitumor OR antitumour OR anticancer))) AND (tw:(mh:("Nutrition Therapy") OR (mh:("Nutritional Support") NOT mh:("Parenteral Nutrition")) OR mh:("Dietary Supplements") OR mh:("Food, Formulated") OR mh:("Diet Therapy") OR mh:("Food, Fortified") OR ((formulat* OR formulad* OR artificial* OR sintétic* OR fórmula* OR supplement* OR suplement* OR enriched OR fortificad* OR enriquecid* OR sip OR oral OR therap* OR terapia* OR support OR suporte OR apoio OR apoyo OR enteral) AND (diet* OR dieta OR feed* OR alimentação OR alimentación OR food* OR alimento* OR nutri*)))) AND (instance:"regional") AND (db:("LILACS"))

Open Grey

#1 (((formulat* OR supplement* OR enriched OR sip OR oral OR enteral OR therap* OR support) AND (diet* OR feed* OR food* OR nutrit*)) AND (cetuximab OR erlotinib OR bevacuzimab OR bevacizumab OR panitumumab OR trastuzumab OR chemotherap* OR chemoradiotherap* OR chemo-radiotherap* OR radiotherap* OR radiochemotherap* OR radio-chemotherap* OR "molecular targeted therapies" OR antineoplastic* OR antitumor OR antitumour OR anticancer) AND ((head OR neck OR face OR facial OR thyroid OR parathyroid OR salivary OR paranasal OR "aero digestive" OR aerodigestive OR aero-digestive OR UADT OR otorhinolaryngologic OR tracheal OR larynx OR laryngeal OR glottis OR glottic OR "oral cavity" OR nasopharynx OR nasopharyngeal OR hypopharynx OR hypopharyngeal OR pharynx OR palate OR tongue) AND (cancer* OR carcinoma* OR neoplasm* OR tumor* OR tumour* OR metastas* OR neoplasia* OR malignan*)))

ProQuest

#1 ((MESH("Head and Neck Neoplasms") OR MESH("Otorhinolaryngologic Neoplasms") OR (NOFT(head OR neck OR tracheal OR larynx OR laryngeal OR glottis OR glottic OR "oral cavity" OR nasopharynx OR nasopharyngeal OR hypopharynx OR hypopharyngeal OR pharyngeal OR pharyngeal OR pharyngeal OR pharyngeal OR gingiva OR gingival OR lip OR palate OR palatal OR tongue OR face

OR facial OR thyroid OR parathyroid OR salivary OR paranasal OR "aero digestive" OR aerodigestive OR aero-digestive OR uadt OR otorhinolaryngologic) AND ((MESH(neoplasms) OR NOFT(cancer* OR carcinoma* OR neoplasm* OR tumor* OR tumour* OR metastas* OR neoplasia*))))) AND ((MESH("Antineoplastic Protocols") OR MESH("Antineoplastic Agents") OR MESH(radiotherapy) OR MESH(chemoradiotherapy) OR MESH("Molecular Targeted Therapy") OR NOFT(cetuximab OR erlotinib OR bevacuzimab OR bevacizumab OR panitumumab OR trastuzumab OR chemotherap* OR chemo-radiotherap* OR radiotherap* OR radiochemotherap* OR radio-chemotherap* OR "molecular targeted therapy" OR "molecular targeted therapies" OR antineoplastic* OR antitumor OR antitumour OR anticancer))) AND ((MESH("Nutrition Therapy") OR (MESH("Nutritional Support") NOT MESH("Parenteral Nutrition")) OR MESH("Dietary Supplements") OR MESH("Food, Formulated") OR MESH("Diet Therapy") OR MESH("Food, Fortified") OR (NOFT(formulat* OR formulad* OR fórmula* OR supplement* OR enriched OR sip OR oral OR therap* OR support OR enteral) AND NOFT(diet* OR feed* OR food* OR nutri*)))))

Google Scholar

#1 oral nutritional supplements head and neck cancer

ClinicalTrials.gov

- ((formulation OR supplement OR enriched OR sip OR oral OR enteral OR therapy OR support) AND (diet OR feed OR food OR nutrition))
- Condition: head and neck

WHO International Clinical Trials Registry Platform (ICTRP)

Intervention: ((formulation OR supplement OR enriched OR sip OR oral OR enteral OR therapy OR support) AND (diet OR feed OR food OR nutrition))
 Condition: ((head OR neck OR face OR facial OR thyroid OR parathyroid OR salivary OR paranasal OR aero digestive OR aerodigestive OR aero-digestive OR UADT OR otorhinolaryngologic OR tracheal OR larynx OR laryngeal OR glottis OR glottic OR oral cavity OR nasopharynx OR nasopharyngeal OR hypopharynx OR hypopharyngeal OR pharynx OR pharyngeal OR pharynx OR para-pharyngeal OR mouth OR oral OR gingival OR gingiva OR lip OR palatal OR palate OR tongue) AND (cancer* OR carcinoma OR neoplasm OR tumor OR tumour OR metastas OR neoplasia OR malignan))

Trial identifier	Participants	Interventions	Comparator	Outcomes of interest	Starting date	Contact information
UMIN000010370 ⁽¹⁾	Head and neck cancer patients undergoing chemoradiotherapy	Oral nutritional supplements	No administration of oral nutritional supplements	 CTCAE score for inflammation of oral/pharyngeal mucosa. Rate of chemoradiotherapy completion Body weight 	March 31, 2013 (Registration date)	matsuhiroshi@med.niigata- u.ac.jp
NCT00296452 ⁽²⁾	Head and neck cancer patients undergoing radiotherapy	Nutritional counseling plus oral nutritional supplements	Nutritional counseling alone	Severity of mucositisWeight lossQuality of life	February 2006	Sharon.Foley@med.va.gov
NCT02776124 ⁽³⁾	Nasopharyngeal cancer patients undergoing chemoradiotherapy	Nutritional counseling plus oral nutritional supplements	Nutritional counseling alone	 Body weight (kg) Treatment-related adverse events Quality of Life 	June 2014	Guopei Zhu, Shanghai Ninth People's Hospital Affiliated to Shanghai Jiao Tong University
NCT03344068 ⁽⁴⁾	Nasopharyngeal cancer patients undergoing radiotherapy with or without chemotherapy	Oral nutritional supplements	Nutritional counseling alone	 Body weight Quality of life Severe oral mucositis Interruption rate of radiotherapy and/or chemotherapy caused by intolerance 	January 1, 2018 (Estimated)	xiayf@sysucc.org.cn
ACTRN12617001248358p	Head and neck cancer patients undergoing chemoradiotherapy	Oral nutritional supplements	Standard of care nutritional group (unclear if includes nutritional counseling)	Body weightQuality of life	August 28, 2017 (Registration date)	a.braakhuis@auckland.ac.nz

Table S2. Characteristics of ongoing or unpublished studies

Study ID	Description	Goal	Content	Delivery	Frequency
Comparison one					
Arnold et al. (1989) ⁽⁶⁾	Intensive nutritional counseling	NR	Recommendations of full liquid, pureed, or soft diets when appropriate, using common household foods.	Unclear	All patients were seen on a weekly basis.
Cereda et al. (2018) ⁽⁷⁾	Individualized diet prescription	To achieve estimated protein-calorie	Including sample meal plans and recipe suggestions;	Dietitian	Regular consultation by a registered dietitian (face-to-face interviews:
		1.5; protein 1.2 g/kg) and to take into account chewing and swallowing abilities.	Prescription tailored on personal eating patterns and preferences.		and at 3 months after the end of treatment; telephone interviews: during the 3 months after the end of treatment)
Chitapanarux et al. $(2016)^{(8)}$	Individualized nutritional counseling	NR	NR	Dietitian	Weekly
Jiang et al. (2019) ⁽⁹⁾	General dietary advice	NR	NR	NR	NR
Nayel et al. (1992) ⁽¹⁰⁾	General dietary advice	NR	Quote: "All patients were encouraged to choose soft nonirritant foods of high calorie nutritional value"	NR	NR

Table S3. Detailed information of the nutritional counseling interventions in the included trials

Study ID	Description	Goal	Content	Delivery	Frequency
Comparison two					
Ding et al. (2018) ⁽¹¹⁾	Individualized nutritional counseling	NR	NR	Dietitian	Once before the start of treatment, then weekly after the start of treatment
Moriarty et al. (1981) ⁽¹²⁾	Individualized nutritional advice	Increasing calorie and protein content of the diet	NR	Dietitian	Twice a week monitoring by a dietitian
Comparison four					
Ravasco et al. (2005) ⁽¹³⁾	Individualized diet prescription	Adequate intake to provide requirements and alleviation or arrest of local symptoms, psychological factors, and digestive and absorptive capacity	Type, amount, and frequency of feeding, specific caloric/protein level to attain, indication of any restrictions and limited or increased individual dietary components; Prescription using regular foods, adjusted to personal eating patterns and preferences.	Individualized diet prescription	Adequate intake to provide requirements and alleviation or arrest of local symptoms, psychological factors, and digestive and absorptive capacity

	Mortality (3	Study	Arnold		Journal article(s) with results of	
Outcome	months after the	ID	1989	Source	the trial	
	end of treatment)	II.	1909			
Domain	Signaling question	1		Response	Description	
	1.1 Was the allocation sequence			NI		
	random?			111	Quote: "Patients were randomized to	
	1.2 Was the allocation sequence				supplemented or non-supplemented	
	concealed until participants were			NI	groups."	
Bias arising	enrolled and assigned to interventions?					
from the					Comment: baseline imbalances in	
randomization	12 Did hagaling di	ffananaaal	• otwoor		number of participants in each group	
process	intervention group	suggest a	nrohlem	ΡV	and disease stage (even though	
	with the randomize	s suggest a	ss?	11	narticinants had been previously	
			. 66.		stratified according to tumor site and	
					disease stage)	
	Risk of bias judge	ement		High		
	2.1.Were participat	nts aware o	of their	v		
	assigned interventi	on during	the trial?	Y	Comments and blinded trial of	
	2.2.Were carers an	d people d	elivering		Comment: non-blinded trial of	
	the interventions av	nterventions aware of participants'			nutitional intervention	
	assigned interventi	on during	the trial?			
	2.3. If $Y/PY/NI$ to	2.1 or 2.2:	Were there		Comment: During the first 10 weeks,	
	deviations from the intended			РҮ	1 patient in the comparator group	
	intervention that arose because of the				took oral supplements, and the reason	
	experimental context?				was not stated in the study report.	
	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?				Comment: Participants in the	
Diag due to				N	mervention group apparently did not	
deviations					interventions related to experimental	
from intended					context in this period.	
interventions	2.5 If N/PN/NI to 2	2.4: Were t	these		Comment: Considering that oral	
	deviations likely to have affected the			Y	nutritional supplements are the	
	outcome?				intervention of interest.	
	2.6 Was an appropriate analysis used to				Comment: Even though it is not	
	estimate the effect	of assignn	nent to	PY	clearly described, outcome data was	
	intervention?				available for all patients.	
	2.7 If N/PN/NI to 2	2.6: Was th	nere			
	potential for a subs	tantial imp	pact (on the	N T A		
	result) of the failur	e to analyz	ze which they	NA		
	were randomized?	group to w	men mey			
	Disk of bias judge	mont		High		
	3 1 Were data for t	his outcom	ne available	mgn		
	for all, or nearly al	l. participa	nts	Y	Comment: Outcome data for all	
	randomized?	, parairi pa		-	participants is reported.	
	3.2 If N/PN/NI to 3	3.1: Is ther	e evidence			
D : 1 /	that result was not	biased by a	missing	NA		
Bias due to	outcome data?					
missing	3.3 If N/PN to 3.2:	Could mis	ssingness in	NΛ		
outcome uata	the outcome depen	d on its tru	ie value?			
	3.4 If Y/PY/NI to 3	3.3: Is it lik	cely that			
	missingness in the	outcome d	lepended on	NA		
	its true value?					
	Risk of bias judge	ement		Low		

Table S4. Complete risk of bias assessments including answers to signaling questions

	4.1 Was the metho outcome inappropr	d of measu riate?	uring the	PN	Comment: Even though it was not described, we assumed this outcome was probably measured appropriately.
	4.2 Could measure ascertainment of th differed between in	ement or ne outcome nterventior	e have 1 groups?	N	Quote: "Nutritional assessment was performed at pre-treatment, 3, 5, 7, IO-week and 6-month intervals. Body weight, serum albumin, transferrin and 24 hour dietary recalls were recorded at this time." Comment: Apparently the opportunities for data collection were the same for both groups.
Bias in measurement of the outcome	4.3 Were outcome assessors aware of the intervention received by study participants?			РҮ	Comment: no information about blinding of outcome assessor for this specific outcome, but since it was a non-blinded study with unclear allocation concealment, we made a judgement.
	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?			PN	Comment: This is an objective outcome.
	4.5 If Y/PY/NI to 4 assessment of the of influenced by know received?	4.4: Is it lik outcome w wledge of i	kely that as intervention	NA	
	Risk of bias judge	ement		Low	
	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?			NI	Comment: Protocol is not available.
selection of the reported result	5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain?			PN	Comment: Unlikely because of the nature of the outcome.
	5.3 multiple analyses of the data?			PN	Comment: Unlikely because of the nature of the outcome.
	Risk of bias judge	ement		Some concerns	
Overall bias	Risk of bias judge	ement		High	
Outcome	Body weight (at week 10 - after the end of treatment 5-8)	Study ID	Arnold 1989	Source	Journal article(s) with results of the trial
Domain	Signaling question	n		Response	Description
	1.1 Was the allocation random?	tion seque	nce	NI	Quote: "Patients were randomized to
Bios orising	1.2 Was the alloca concealed until par enrolled and assign	tion sequer rticipants v ned to inter	nce vere ventions?	NI	supplemented or non-supplemented groups."
from the randomization process	1.3 Did baseline di intervention group with the randomiza	ifferences l s suggest a ation proce	petween problem ess?	РҮ	Comment: baseline imbalances in number of participants in each group and some characteristics such as sex and disease stage (even though participants had been previously stratified according to tumor site and disease stage)
	Risk of bias judge	ement		High	

	2.1. Were participants aware of their		
	assigned intervention during the trial?	Y	
	2.2. Were carers and people delivering		Comment: non-blinded trial of
	the interventions aware of participants'	Y	nutritional intervention
	assigned intervention during the trial?	-	
	2.3 If Y/PY/NI to 2.1 or 2.2. Were there		Comment: During the first 10 weeks
	deviations from the intended		1 patient in the comparator group
	intervention that arose because of the	PY	took oral supplements and the reason
	experimental context?		was not stated in the study report
			Comment: Participants in the
	2.1 If V/DV to 2.3 . Were these		intervention group apparently did not
	deviations from intended intervention	N	present any deviation from intended
	balanced between ground?	11	interventions related to experimental
Diag due to	balanced between groups:		context in this period
Blas due to	2.5. If N/DN/NI to 2.4. Were these		Comment: Considering that oral
deviations	deviations likely to have affected the	v	nutritional supplements are the
internetions	automa?	I	intervention of interest
interventions	outcome?		Intervention of interest.
			Comment: Even though it is not
	2.6 Wag on annuariate analysis used to		that at least a modified intention to
	2.0 was an appropriate analysis used to	DV	that at least a modified intention to
	estimate the effect of assignment to	Ρĭ	treat analysis was performed. At 5
	intervention?		months, data for all patients were
			diad in the newind (unclean rate of)
	27 If N/DN/NI to 2 G. When these		died in the period (unclear when).
	2.7 II N/PN/NI to 2.6: was there		
	potential for a substantial impact (on the	NIA	
	result) of the failure to analyze	INA	
	participants in the group to which they		
	Disk of his size days and the second	TL'-L	
	Risk of blas judgement	пign	
	2.1 Wang data fan this anta ana angilalda		Comments Initially it may a supplied but
	3.1 Were data for this outcome available	V	Comment: Initially it was unclear, but
	3.1 Were data for this outcome available for all, or nearly all, participants	Y	Comment: Initially it was unclear, but at the longest follow-up, the outcome
	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	Y	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported.
	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing 	Y	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported.
Bias due to	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 	Y NA	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported.
Bias due to missing	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in 	Y NA	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported.
Bias due to missing outcome data	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 	Y NA NA	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported.
Bias due to missing outcome data	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that 	Y NA NA	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported.
Bias due to missing outcome data	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on 	Y NA NA	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported.
Bias due to missing outcome data	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? 	Y NA NA NA	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported.
Bias due to missing outcome data	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 	Y NA NA NA Low	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported.
Bias due to missing outcome data	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the 	Y NA NA NA Low	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported.
Bias due to missing outcome data	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 	Y NA NA NA Low	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported.
Bias due to missing outcome data	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 	Y NA NA NA Low NI	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported.
Bias due to missing outcome data	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 	Y NA NA NA Low NI	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported.
Bias due to missing outcome data	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 	Y NA NA NA Low NI	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported. Comment: No information reported. Quote: "Nutritional assessment was performed at pre-treatment, 3, 5, 7, IO-week and 6-month intervals. Body
Bias due to missing outcome data	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or 	Y NA NA NA Low NI	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported. Comment: No information reported. Quote: "Nutritional assessment was performed at pre-treatment, 3, 5, 7, IO-week and 6-month intervals. Body weight, serum albumin, transferrin
Bias due to missing outcome data	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have 	Y NA NA NA Low NI	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported. Comment: No information reported. Quote: "Nutritional assessment was performed at pre-treatment, 3, 5, 7, IO-week and 6-month intervals. Body weight, serum albumin, transferrin and 24 hour dietary recalls were
Bias due to missing outcome data Bias in	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 	Y NA NA NA Low NI	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported. Comment: No information reported. Quote: "Nutritional assessment was performed at pre-treatment, 3, 5, 7, IO-week and 6-month intervals. Body weight, serum albumin, transferrin and 24 hour dietary recalls were recorded at this time."
Bias due to missing outcome data Bias in measurement	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 	Y NA NA NA NA NA NA NI NI	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported. Comment: No information reported. Quote: "Nutritional assessment was performed at pre-treatment, 3, 5, 7, IO-week and 6-month intervals. Body weight, serum albumin, transferrin and 24 hour dietary recalls were recorded at this time." Comment: Apparently the
Bias due to missing outcome data Bias in measurement of the outcome	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 	Y NA NA NA NA NA NA NI NI	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported. Comment: No information reported. Quote: "Nutritional assessment was performed at pre-treatment, 3, 5, 7, IO-week and 6-month intervals. Body weight, serum albumin, transferrin and 24 hour dietary recalls were recorded at this time." Comment: Apparently the opportunities for data collection were
Bias due to missing outcome data Bias in measurement of the outcome	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 	Y NA NA NA NA NA NI NI	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported. Comment: No information reported. Quote: "Nutritional assessment was performed at pre-treatment, 3, 5, 7, IO-week and 6-month intervals. Body weight, serum albumin, transferrin and 24 hour dietary recalls were recorded at this time." Comment: Apparently the opportunities for data collection were the same for both groups.
Bias due to missing outcome data Bias in measurement of the outcome	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 	Y NA NA NA NA NA NI NI	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported. Comment: No information reported. Quote: "Nutritional assessment was performed at pre-treatment, 3, 5, 7, IO-week and 6-month intervals. Body weight, serum albumin, transferrin and 24 hour dietary recalls were recorded at this time." Comment: Apparently the opportunities for data collection were the same for both groups. Comment: no information about
Bias due to missing outcome data Bias in measurement of the outcome	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 	Y NA NA NA NA NA NA NI NI	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported. Comment: No information reported. Quote: "Nutritional assessment was performed at pre-treatment, 3, 5, 7, IO-week and 6-month intervals. Body weight, serum albumin, transferrin and 24 hour dietary recalls were recorded at this time." Comment: Apparently the opportunities for data collection were the same for both groups. Comment: no information about blinding of outcome assessor for this
Bias due to missing outcome data Bias in measurement of the outcome	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 4.3 Were outcome assessors aware of the intervention matrix and the states and the st	Y NA NA NA NA NA NA NI NI	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported. Comment: No information reported. Quote: "Nutritional assessment was performed at pre-treatment, 3, 5, 7, IO-week and 6-month intervals. Body weight, serum albumin, transferrin and 24 hour dietary recalls were recorded at this time." Comment: Apparently the opportunities for data collection were the same for both groups. Comment: no information about blinding of outcome assessor for this specific outcome, but since it was a
Bias due to missing outcome data Bias in measurement of the outcome	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 4.3 Were outcome assessors aware of the intervention received by study methods. 	Y NA NA NA NA NA NA PY PY	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported. Comment: No information reported. Quote: "Nutritional assessment was performed at pre-treatment, 3, 5, 7, IO-week and 6-month intervals. Body weight, serum albumin, transferrin and 24 hour dietary recalls were recorded at this time." Comment: Apparently the opportunities for data collection were the same for both groups. Comment: no information about blinding of outcome assessor for this specific outcome, but since it was a non-blinded study with unclear
Bias due to missing outcome data Bias in measurement of the outcome	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 4.3 Were outcome assessors aware of the intervention received by study participants? 	Y NA NA NA NA NA NA PY PY	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported. Comment: No information reported. Quote: "Nutritional assessment was performed at pre-treatment, 3, 5, 7, IO-week and 6-month intervals. Body weight, serum albumin, transferrin and 24 hour dietary recalls were recorded at this time." Comment: Apparently the opportunities for data collection were the same for both groups. Comment: no information about blinding of outcome assessor for this specific outcome, but since it was a non-blinded study with unclear allocation concealment, we made a
Bias due to missing outcome data Bias in measurement of the outcome	 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 4.3 Were outcome assessors aware of the intervention received by study participants? 	Y NA NA NA NA NA NA PY PY	Comment: Initially it was unclear, but at the longest follow-up, the outcome of all patients is reported. Comment: No information reported. Quote: "Nutritional assessment was performed at pre-treatment, 3, 5, 7, IO-week and 6-month intervals. Body weight, serum albumin, transferrin and 24 hour dietary recalls were recorded at this time." Comment: Apparently the opportunities for data collection were the same for both groups. Comment: no information about blinding of outcome assessor for this specific outcome, but since it was a non-blinded study with unclear allocation concealment, we made a judgement.

	4.4 If Y/PY/NI to a of the outcome has knowledge of inter	4.3: Could ve been inf rvention re	assessment luenced by ceived?	PN	Comment: Even though no method was reported for the assessment of body weight, this is an objective outcome commonly measured using a scale.
	4.5 If Y/PY/NI to assessment of the of influenced by know received?	4.4: Is it lik outcome w wledge of i	cely that as intervention	NA	
	Risk of bias judge	ement		Low	
	5.1 Were the data result analyzed in specified analysis before unblinded of available for analy	that produc accordance plan that w outcome da	eed this with a pre- vas finalized ta were	NI	Comment: Protocol is not available.
Bias in selection of the reported	5.2 multiple out (e.g. scales, definit within the outcome	come meas tions, time e domain?	surements points)	PN	Comment: Unlikely because of the nature of the outcome.
result	5.3 multiple ana	lyses of the	e data?	NI	Comment: analysis intentions is not available. Results are presented in a graph with percentage change from original weight.
	Risk of bias judge	ement		Some concerns	
Overall bias	Risk of bias judge	ement	1	High	
Outcome	Adverse effects Study ID Cereda 2018		Source	Journal article(s) with results of the trial; Trial protocol; Conference abstract(s) about the trial	
Domain	Signaling question	n		Response	Description
	1.1 Was the alloca random?	tion seque	nce	Y	Quote: "Allocation to the two intervention groups was performed
Bias arising from the randomization process	1.2 Was the allocation sequence concealed until participants were enrolled and assigned to interventions?			Y	according to a computer-generated random blocks randomization list (varying block sizes)." Quote: "The randomization list was prepared by a local statistician, who was not involved in the selection and enrollment of patients. Concealment was achieved by using sealed envelopes."
	1.3 Did baseline di intervention group with the randomiza	ifferences l s suggest a ation proce	between problem ess?	Ν	Comment: no apparent imbalances
	Risk of bias judge	ement		Low	
	2.1.Were participa	nts aware o	of their	Y	
	2.2.Were carers an the interventions a assigned interventi	ion during id people d ware of pa- ion during	the trial? elivering rticipants' the trial?	Y	Comment: non-blinded trial of nutritional intervention
deviations from intended interventions	the interventions aware of participants' assigned intervention during the trial? 2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?			N	Comment: Artificial enteral nutrition was started in 9% of patients in the intervention group, 9.9% in the comparator group. Reason: treatment- related toxicity and its sequelae (<60% of estimated requirements for

			Oral nutritional supplements were prescribed to 9.9% of patients in the comparator group. Reason: ethical reasons, to improve their protein- calorie intakes (food intake < 60% of estimated requirements for two consecutive weeks)
	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA	
	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	Y	Quote: "The analysis compared patients, following a modified intention-to-treat principle. Then a series of supportive analyses of the primary endpoint were performed."
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Low	
	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	N	Comment: 86% available in the intervention group; 85% available in the comparator group. The ratio of participants with missing data to participants with events was 23/9 (2.55) for gastrointestinal tolerance.
Bias due to missing outcome data	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	РҮ	Quote: "Dropouts were not clinically and statistically different from patients remaining in the study, neither at baseline nor during follow- up (data not shown); thus we considered missingness to be at random."
	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NA	
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	NA	
	Risk of bias judgement	Low	
Bias in measurement of the outcome	4.1 Was the method of measuring the outcome inappropriate?	PN	Quote: Patients were actively monitored for the occurrence of gastrointestinal disorders (common adverse events). No serious adverse event associated with the consumption of ONS was expected." Quote: "Gastro-intestinal intolerance to ONS, particularly feeling of full- ness, was recorded in 9 patients; of these, 3 stopped their consumption. As reported above, 8 patients died during the study, but no death was related to the study intervention. No other intervention-related adverse events occurred."

	-				
					of active monitoring was not fully described, we judged it to be probably adequate.
	4.2 Could measure ascertainment of th differed between in	ement or ne outcome ntervention	e have a groups?	N	Quote: "Patients were actively monitored for the occurrence of gastrointestinal disorders ()" Comment: Assessment opportunities were apparently the same for all participants.
	4.3 Were outcome the intervention re- participants?	assessors a ceived by s	aware of study	Y	Comment: This is a participant- reported outcome.
	4.4 If Y/PY/NI to 4 of the outcome hav knowledge of inter	4.3: Could ve been inf <u>vention</u> re	assessment luenced by ceived?	Y	Comment: This is a participant- reported outcome.
	4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received?			РҮ	Comment: Participants knew they were receiving the ONS and probably had been informed that adverse event might occur.
	Risk of bias judge	ement		High	
5.1 Were the data that produced this result analyzed in accordance with a pro- specified analysis plan that was finalize before unblinded outcome data were			eed this with a pre- vas finalized ta were	N	Comment: The outcome was not pre- registered.
Bias in selection of the reported result	5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain?			NI	Comment: The only issue raised was the definition of gastro-intestinal intolerance and how this information was reported by the participants. Was it an open question? A form with options? This could lead to different outcomes being reported.
	5.3 multiple analyses of the data?			NI	
	Risk of hise judge	ement		Some	
	Task of bias Judge	ment		concerns	
Overall bias	Risk of bias judge	ement	1	High	
Outcome	Handgrip strength (at end of treatment) Study ID Cereda 2018		Source	Journal article(s) with results of the trial; Trial protocol; Conference abstract(s) about the trial	
Domain	Signaling question	n		Response	Description
	1.1 Was the alloca random?	tion seque	nce	Y	Quote: "Allocation to the two intervention groups was performed
Bias arising from the randomization process	1.2 Was the allocation sequence concealed until participants were enrolled and assigned to interventions?			Y	according to a computer-generated random blocks randomization list (varying block sizes)." Quote: "The randomization list was prepared by a local statistician, who was not involved in the selection and enrollment of patients. Concealment was achieved by using sealed envelopes."

	1.3 Did baseline differences between intervention groups suggest a problem with the randomization process?	Ν	Comment: no apparent imbalances
	Risk of bias judgement	Low	
	2.1.Were participants aware of their	V	
	assigned intervention during the trial?	1	Comment: non-blinded trial of
	2.2.Were carers and people delivering		nutritional intervention
	the interventions aware of participants'	Y	
Bias due to deviations from intended interventions	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?	N	Comment: Artificial enteral nutrition was started in 9% of patients in the intervention group, 9.9% in the comparator group. Reason: treatment- related toxicity and its sequelae (<60% of estimated requirements for two consecutive weeks despite the use of ONS). Oral nutritional supplements were prescribed to 9.9% of patients in the comparator group. Reason: ethical reasons, to improve their protein- calorie intakes (food intake < 60% of
	2.4. If Y/PY to 2.3: Were these deviations from intended intervention	NA	estimated requirements for two consecutive weeks)
	balanced between groups?		
	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	Y	Quote: "The analysis compared patients, following a modified intention-to-treat principle. Then a series of supportive analyses of the primary endpoint were performed."
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Low	
	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	N	Comment: 86% available in the intervention group; 85% available in the comparator group
Bias due to missing outcome data	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	РҮ	Quote: "Dropouts were not clinically and statistically different from patients remaining in the study, neither at baseline nor during follow- up (data not shown); thus we considered missingness to be at random."
	3.3 If N/PN to 3.2: Could missingness in	NA	
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on	NA	
	its true value?		
	Risk of bias judgement	Low	

	4.1 Was the metho outcome inappropr	d of measu riate?	uring the	N	Quote: "Functional status was assessed by digital hand dynamometry (handgrip strength [HG]; DynEx TM, Akern/MD Systems)." [27] World Health Organization. Physical status: the use and interpretation of anthropometry. Report of a WHO Expert Committee. World Health Organ Tech Rep Ser 1995:854:1–452.
Bias in measurement	4.2 Could measure ascertainment of the differed between in	ment or ne outcome nterventior	e have 1 groups?	N	Comment: assessment opportunities was the same for all participants.
of the outcome	4.3 Were outcome the intervention re- participants?	assessors a ceived by s	aware of study	РҮ	Comment: It is unclear who measured this outcome, but the authors reported that outcome assessors of severity of mucositis were blinded and made no comment on this specific outcome.
	4.4 If Y/PY/NI to 4 of the outcome hav knowledge of inter	4.3: Could ve been inf	assessment luenced by ceived?	Ν	Comment: This is an objective outcome and was measured in a standardized way.
	4.5 If Y/PY/NI to 4 assessment of the of influenced by know received?	4.4: Is it lik outcome w wledge of i	kely that as intervention	NA	
	Risk of bias judgement			Low	
Rias in	5.1 Were the data t result analyzed in a specified analysis before unblinded o available for analy	that produc accordance plan that w outcome da sis?	e with a pre- vas finalized ta were	Y	Quote in protocol: "Trends in handgrip strength during the study (assessment: at the end of radiotherapy; at 1 month and at 3 months since the end of radiotherapy"
selection of the reported result	5.2 multiple out (e.g. scales, definit within the outcome	come meas tions, time e domain?	surements points)	N	Comment: The result is unlikely to have been chosen on the basis of its results.
	5.3 multiple analyses of the data?			PN	Comment: Probably no, because of the uncertainty on the word "trend" used in the study protocol.
	Risk of bias judge	ement		Low	
Overall bias	Risk of bias judge	ement		Low	
Outcome	Temporary interruption of RT (at end of treatment)	Study ID	Cereda 2018	Source	Journal article(s) with results of the trial; Trial protocol; Conference abstract(s) about the trial
Domain	Signaling question	n		Response	Description
	1.1 Was the alloca random?	tion seque	nce	Y	Quote: "Allocation to the two intervention groups was performed
Bias arising from the randomization process	1.2 Was the allocation sequence concealed until participants were enrolled and assigned to interventions?			Y	according to a computer-generated random blocks randomization list (varying block sizes)." Quote: "The randomization list was prepared by a local statistician, who was not involved in the selection and enrollment of patients. Concealment was achieved by using sealed

	1.3 Did baseline differences between intervention groups suggest a problem with the randomization process?	Ν	Comment: no apparent imbalances
	Risk of bias judgement	Low	
	2.1.Were participants aware of their	v	
	assigned intervention during the trial?	I	Comment: non blinded trial of
Bias due to deviations from intended interventions	2.2.Were carers and people delivering the interventions aware of participants' assigned intervention during the trial?	Y	nutritional intervention
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?	N	Comment: Artificial enteral nutrition was started in 9% of patients in the intervention group, 9.9% in the comparator group. Reason: treatment- related toxicity and its sequelae (<60% of estimated requirements for two consecutive weeks despite the use of ONS). Oral nutritional supplements were prescribed to 9.9% of patients in the comparator group. Reason: ethical reasons, to improve their protein- calorie intakes (food intake < 60% of estimated requirements for two consecutive weeks)
	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA	
	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	Y	Quote: "The analysis compared patients, following a modified intention-to-treat principle. Then a series of supportive analyses of the primary endpoint were performed."
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Low	
	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	РҮ	Comment: 86% available in the intervention group; 85% available in the comparator group. The ratio of participants with missing data to participants with events was 23/64 (0.36).
Bias due to missing outcome data	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	NA	
	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NA	
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	NA	
	Risk of bias judgement	Low	
	4.1 Was the method of measuring the outcome inappropriate?	NI	

	4.2 Could measure ascertainment of th differed between in	ement or ne outcome nterventior	e have 1 groups?	N	Quote: "() tolerance to anti-cancer treatments was continuously monitored." Comment: Assessment opportunities were apparently the same for all participants.
Bias in measurement of the outcome	4.3 Were outcome the intervention re- participants?	assessors a ceived by s	aware of study	РҮ	this outcome, but the authors reported that outcome assessors of severity of mucositis were blinded and made no comment on this specific outcome.
	4.4 If Y/PY/NI to 4 of the outcome hav knowledge of inter	4.3: Could ve been inf	assessment luenced by ceived?	Ν	Comment: This is an objective outcome.
	4.5 If Y/PY/NI to 4 assessment of the o influenced by know received?	4.4: Is it lik outcome w wledge of i	cely that as intervention	NA	
	Risk of bias judge	ement		Low	
	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?				Quote in protocol: "Feasibility of radiotherapy: number of interruptions >5 days; total duration (days); dose reduction" Comment: The way this outcome was reported is not in accordance to the study protocol.
Bias in selection of the reported result	5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain?			PN	Comment: Only temporary interruption >=5 days was stated in the protocol. The outcome domain "feasibility of radiotherapy" included other measurements that were not reported, but this result does not seem to have been selected on the basis of a "positive" result.
	5.3 multiple analyses of the data?			NI	
	Risk of bias judgement			Some concerns	
Overall bias	Risk of bias judge	ement		Some concerns	
Outcome	Temporary interruption of RT >= 5 days (at end of treatment), CT dose reduction, RT dose reduction	Study ID	Cereda 2018	Source	Journal article(s) with results of the trial; Trial protocol; Conference abstract(s) about the trial
Domain	Signaling question	n		Response	Description
	1.1 Was the alloca random?	tion sequer	nce	Y	Quote: "Allocation to the two intervention groups was performed
Bias arising from the randomization process	1.2 Was the allocation sequence concealed until participants were enrolled and assigned to interventions?			Y	according to a computer-generated random blocks randomization list (varying block sizes)." Quote: "The randomization list was prepared by a local statistician, who was not involved in the selection and enrollment of patients. Concealment

			1 1 1 1 1 1 1
			was achieved by using sealed envelopes "
	1.3 Did baseline differences between intervention groups suggest a problem with the randomization process?	N	Comment: no apparent imbalances
	Risk of bias judgement	Low	
	2.1.Were participants aware of their	V	
Bias due to deviations from intended interventions	assigned intervention during the trial? 2.2.Were carers and people delivering the interventions aware of participants' assigned intervention during the trial?	Y	Comment: non-blinded trial of nutritional intervention
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?	N	Comment: Artificial enteral nutrition was started in 9% of patients in the intervention group, 9.9% in the comparator group. Reason: treatment- related toxicity and its sequelae (<60% of estimated requirements for two consecutive weeks despite the use of ONS). Oral nutritional supplements were prescribed to 9.9% of patients in the comparator group. Reason: ethical reasons, to improve their protein- calorie intakes (food intake < 60% of estimated requirements for two consecutive weeks)
	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA	
	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	Y	Quote: "The analysis compared patients, following a modified intention-to-treat principle. Then a series of supportive analyses of the primary endpoint were performed."
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Low	
Bias due to	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	РҮ	Comment: 86% available in the intervention group; 85% available in the comparator group. The ratio of participants with missing data to participants with events was 23/44 (0.52) for RT interruption > 5 days; 23/7 (3.28) for RT dose reduction; 23/20 (1.15) for CT dose reduction.
outcome data	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	NA	
	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NA	
	missingness in the outcome depended on its true value?	NA	

	Risk of bias judge	ement		Low	
	4.1 Was the metho outcome inappropri	d of measu riate?	ring the	NI	
	4.2 Could measure ascertainment of th differed between in	ment or ne outcome ntervention	e have a groups?	Ν	Quote: "() tolerance to anti-cancer treatments was continuously monitored." Comment: Assessment opportunities were apparently the same for all participants.
Bias in measurement of the outcome	4.3 Were outcome the intervention re- participants?	assessors a ceived by s	aware of study	РҮ	Comment: It is unclear who measured this outcome, but the authors reported that outcome assessors of severity of mucositis were blinded and made no comment on this specific outcome.
	4.4 If Y/PY/NI to 4 of the outcome hav knowledge of inter	4.3: Could ve been inf	assessment luenced by ceived?	Ν	Comment: This is an objective outcome.
	4.5 If Y/PY/NI to 4 assessment of the o influenced by know received?	4.4: Is it lik outcome w wledge of i	cely that as ntervention	NA	
	Risk of bias judge	ement		Low	
	5.1 Were the data t result analyzed in a specified analysis before unblinded o available for analy	hat produc accordance plan that w outcome da	ed this with a pre- ras finalized ta were	Y	Quote in protocol: "Feasibility of radiotherapy: number of interruptions >5 days; total duration (days); dose reduction"
Bias in selection of the reported result	5.2 multiple out (e.g. scales, definit within the outcome	come meas ions, time e domain?	surements points)	PN	Comment: The outcome domain "feasibility of radiotherapy" included other measurements that were not reported, but this result does not seem to have been selected on the basis of a "positive" result.
	5.3 multiple ana	lyses of the	e data?	NI	
	Risk of bias judge	ement		Low	
Overall bias	Risk of bias judge	ement	r	Low	
	Mortality (3				Iournal article(s) with results of
Outcome	months after the end of treatment)	Study ID	Cereda 2018	Source	the trial; Trial protocol; Conference abstract(s) about the trial
Domain	Signaling question	n	L	Response	Description
	1.1 Was the allocation random?	tion sequer	nce	Y	Quote: "Allocation to the two intervention groups was performed
Bias arising from the randomization process	1.2 Was the alloca concealed until par enrolled and assign	tion sequer ticipants w ned to inter	nce vere ventions?	Y	according to a computer-generated random blocks randomization list (varying block sizes)." Quote: "The randomization list was prepared by a local statistician, who was not involved in the selection and enrollment of patients. Concealment was achieved by using sealed envelopes."
	1.3 Did baseline di intervention group with the randomiza	fferences b s suggest a ation proce	petween problem ss?	N	Comment: no apparent imbalances
	Risk of bias judge	ement		Low	
Bias due to deviations	2.1.Were participation assigned intervention	nts aware of on during	of their the trial?	Y	Comment: non-blinded trial of nutritional intervention

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from intended	2.2.Were carers and people delivering		
interventions	the interventions aware of participants'	Y	
	assigned intervention during the trial?		
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?	Ν	Comment: Artificial enteral nutrition was started in 15.4% of patients in the intervention group, 18.5% in the comparator group. Reason: treatment- related toxicity and its sequelae (<60% of estimated requirements for two consecutive weeks despite the use of ONS). Oral nutritional supplements were prescribed to 9.9% of patients in the comparator group. Reason: ethical reasons, to improve their protein- calorie intakes (food intake < 60% of estimated requirements for two consecutive weeks)
	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA	
	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	Y	Quote: "The analysis compared patients, following a modified intention-to-treat principle. Then a series of supportive analyses of the primary endpoint were performed."
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Low	
	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	Ν	Comment: 78.2% available in the intervention group; 72.8% available in the comparator group
Bias due to missing outcome data	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	РҮ	Quote: "Dropouts were not clinically and statistically different from patients remaining in the study, neither at baseline nor during follow- up (data not shown); thus we considered missingness to be at random."
	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NA	
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	NA	
	Risk of bias judgement	Low	
Bias in	4.1 Was the method of measuring the outcome inappropriate?	NI	
measurement of the outcome	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	N	Comment: Judgement based on the nature of the outcome.

	4.3 Were outcome the intervention rec participants?	assessors a ceived by s	aware of study	РҮ	Comment: It is unclear who measured this outcome, but the authors reported that outcome assessors of severity of mucositis were blinded and made no comment on this specific outcome.
	4.4 If Y/PY/NI to 4 of the outcome hav knowledge of inter	4.3: Could ve been inf	assessment luenced by ceived?	N	Comment: Judgement based on the nature of the outcome.
	4.5 If Y/PY/NI to 4 assessment of the or influenced by know received?	4.4: Is it lik outcome w wledge of i	cely that as ntervention	NA	
	Risk of bias judge	ement		Low	
D '	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?			N	Comment: The outcome was not pre- registered and was not directly reported, but as reasons for missing participants.
Blas in selection of the reported	5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain?			Ν	Comment: The result is unlikely to have been chosen on the basis of its results.
result	5.3 multiple analyses of the data?			Ν	Comment: The result is unlikely to have been chosen on the basis of its results.
	Risk of bias judgement			Some concerns	
Overall bias	Risk of bias judgement			Some concerns	
Outcome	Quality of life (at end of treatment)	Study ID	Cereda 2018	Source	Journal article(s) with results of the trial; Trial protocol; Conference abstract(s) about the trial
Domain	Signaling question	n		Response	Description
	1.1 Was the allocation random?	tion sequer	nce	Y	Quote: "Allocation to the two intervention groups was performed
Bias arising from the randomization process	1.2 Was the allocation sequence concealed until participants were enrolled and assigned to interventions?		Y	according to a computer-generated random blocks randomization list (varying block sizes)." Quote: "The randomization list was prepared by a local statistician, who was not involved in the selection and enrollment of patients. Concealment was achieved by using sealed envelopes."	
	1.3 Did baseline di intervention group with the randomiza	fferences b s suggest a ation proce	petween problem ss?	Ν	Comment: no apparent imbalances
	Risk of bias judge	ement		Low	
Bias due to	2.1.Were participal	nts aware on during	of their the trial?	Y	
deviations from intended interventions	2.2. Were carers an the interventions a assigned interventi	d people d ware of par on during	elivering rticipants' the trial?	Y	Comment: non-blinded trial of nutritional intervention

	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?	N	Comment: Artificial enteral nutrition was started in 9% of patients in the intervention group, 9.9% in the comparator group. Reason: treatment- related toxicity and its sequelae (<60% of estimated requirements for two consecutive weeks despite the use of ONS). Oral nutritional supplements were prescribed to 9.9% of patients in the comparator group. Reason: ethical reasons, to improve their protein- calorie intakes (food intake < 60% of estimated requirements for two consecutive weeks)
	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA	
	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	Y	Quote: "The analysis compared patients, following a modified intention-to-treat principle. Then a series of supportive analyses of the primary endpoint were performed."
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Low	
	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	Ν	Comment: 86% available in the intervention group; 85% available in the comparator group
Bias due to missing outcome data	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	РҮ	Quote: "Dropouts were not clinically and statistically different from patients remaining in the study, neither at baseline nor during follow- up (data not shown); thus we considered missingness to be at random."
	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NA	
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	NA	
	Risk of bias judgement	Low	
Bias in measurement of the outcome	4.1 Was the method of measuring the outcome inappropriate?	Ν	Quote: "Quality of life was assessed using the European Organization for the Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ-C30)"
	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	N	Comment: assessment opportunities was the same for all participants.
	4.3 Were outcome assessors aware of the intervention received by study participants?	Y	Comment: quality of life is a participant-reported outcome.

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	4.4 If Y/PY/NI to 4 of the outcome hav knowledge of inter	4.3: Could ve been inf rvention re	assessment luenced by ceived?	Y	Comment: quality of life is a participant-reported outcome.
	4.5 If Y/PY/NI to assessment of the assessment of the ainfluenced by know received?	4.4: Is it lik outcome w wledge of i	cely that as ntervention	Y	The patient may hold a strong belief that the supplement might help, depending on how the supplement was described to him and what was written on the package. In addition, they now they are receiving something "extra", beyond nutritional counseling that the control group is also receiving
	Risk of bias inde	ement		High	
Bias in selection of the reported result	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?			Y	Quote in protocol: "Trends in quality of life during the study (assessment: at the end of radiotherapy; at 1 month and at 3 months since the end of radiotherapy)" Comment: The use of the word "trends" is not very specific, but because in the protocol it is also used the word "change" for other outcomes, it is assumed to be adequate; i.e. the measurement presented was probably not chosen based on results, and trend might mean "post-intervention score".
	(e.g. scales, definit within the outcom	tions, time e domain?	points)	N	have been chosen on the basis of its results.
	5.3 multiple ana	lyses of the	e data?	PN	Comment: Probably no, because of the uncertainty on the word "trend" used in the study protocol.
	Risk of bias judge	ement		Low	
Overall bias	Risk of bias judge	ement		High	
Outcome	Mucositis and severe mucositis (at end of treatment)	Study ID	Cereda 2018	Source	Journal article(s) with results of the trial; Trial protocol; Conference abstract(s) about the trial
Domain	Signaling questio	n		Response	Description
	1.1 Was the alloca	tion sequer	nce	V	Quote: "Allocation to the two
Bias arising from the randomization process	arising the lomization ess interventions? interventions?			Y	intervention groups was performed according to a computer-generated random blocks randomization list (varying block sizes)." Quote: "The randomization list was prepared by a local statistician, who was not involved in the selection and enrollment of patients. Concealment was achieved by using sealed envelopes."
	1.3 Did baseline di intervention group with the randomiz	s suggest a ation proce	problem ss?	Ν	Comment: no apparent imbalances
	Risk of bias judge	ement		Low	
Bias due to	2.1.Were participa	nts aware o	of their	v	Comment: non-blinded trial of
deviations	assigned intervent	ion during	the trial?	1	nutritional intervention

2.2.Were carers and people delivering the interventions aware of participants' assigned intervention during the trial?	Y	
2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?	N	Comment: Artificial enteral nutrition was started in 9% of patients in the intervention group, 9.9% in the comparator group. Reason: treatment- related toxicity and its sequelae (<60% of estimated requirements for two consecutive weeks despite the use of ONS). Oral nutritional supplements were prescribed to 9.9% of patients in the comparator group. Reason: ethical reasons, to improve their protein- calorie intakes (food intake < 60% of estimated requirements for two consecutive weeks)
2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA	
2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	Y	Quote: "The analysis compared patients, following a modified intention-to-treat principle. Then a series of supportive analyses of the primary endpoint were performed."
2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
Risk of bias judgement	Low	
3.1 Were data for this outcome available for all, or nearly all, participants randomized?	РҮ	Comment: 86% available in the intervention group; 85% available in the comparator group. The ratio of participants with missing data to participants with events was 23/149 (0.1) for mucositis and 23/49 (0.47) for severe mucositis.
3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	NA	
3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NA	
3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	NA	
Risk of bias judgement	Low	Verify inconsistency of data.
4.1 Was the method of measuring the outcome inappropriate?	N	Quote: "() patients were regularly examined by the same radiotherapist (blinded to treatment allocation) to assess the presence and the severity of mucositis (score ranges 0–5) according to the National Cancer Institute Common Toxicology Criteria"
	 2.2. Were carers and people delivering the interventions aware of participants' assigned intervention during the trial? 2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context? 2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups? 2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome? 2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention? 2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized? Risk of bias judgement 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depend on its true value? A If Y/PY/NI to 3.3: Is it likely that 4.1 Was the method of measuring the outcome inappropriate? 	2.2.Were carers and people delivering the interventions aware of participants' assigned intervention during the trial?Y2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?N2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?NA2.5. If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?NA2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?Y2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?NA3.1 Were data for this outcome available for all, or nearly all, participants randomized?NA3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?NA3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?NA3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?NA4.1 Was the method of measuring the outcome inappropriate?Na

	4.2 Could measure ascertainment of th differed between in	ement or ne outcome nterventior	e have 1 groups?	N	Quote: "() tolerance to anti-cancer treatments was continuously monitored." Comment: Assessment opportunities were apparently the same for all participants.
	4.3 Were outcome the intervention re- participants?	assessors a ceived by s	aware of study	N	Quote: "() patients were regularly examined by the same radiotherapist (blinded to treatment allocation) to assess the presence and the severity of mucositis (score ranges 0–5) according to the National Cancer Institute Common Toxicology Criteria"
	4.4 If Y/PY/NI to 4 of the outcome hav knowledge of inter	4.3: Could ve been inf	assessment luenced by ceived?	NA	
	4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received?				
	Risk of bias judge	ement		Low	
	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?				Comment: The outcome was not pre- registered.
Bias in selection of the reported result	5.2 multiple out (e.g. scales, definit within the outcome	come meas tions, time e domain?	surements points)	РҮ	Comment: Considering that mucositis was part of the outcome domain "feasibility of radiotherapy", which included other measurements that were not reported. This outcome favored the intervention group.
	5.3 multiple ana	lyses of the	e data?	NI	
	Risk of bias judge	ement		High	
Overall bias	Risk of bias judge	ement		High	
Outcome	RT dose reduction or complete suspension; ST dose reduction or complete suspension; composite RT and/or ST dose reduction or complete suspension (end of treatment)	Study ID	Cereda 2018	Source	Journal article(s) with results of the trial; Trial protocol; Conference abstract(s) about the trial
Domain	Signaling question			Response	Description
Bias arising from the randomization process	1.1 Was the alloca random?1.2 Was the alloca concealed until par enrolled and assign	tion sequer tion sequer rticipants v ned to inter	nce nce vere vertions?	Y Y	Quote: "Allocation to the two intervention groups was performed according to a computer-generated random blocks randomization list (varying block sizes)." Quote: "The randomization list was
					prepared by a local statistician, who

			was not involved in the selection and enrollment of patients. Concealment was achieved by using sealed envelopes."	
	1.3 Did baseline differences between intervention groups suggest a problem with the randomization process?	N	Comment: no apparent imbalances	
	Risk of bias judgement	Low		
	2.1.Were participants aware of their	v		
	assigned intervention during the trial?	I	Comments and him do d trial of	
Bias due to deviations from intended interventions	2.2.Were carers and people delivering the interventions aware of participants' assigned intervention during the trial?	Y	nutritional intervention	
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?	Ν	Comment: Artificial enteral nutrition was started in 9% of patients in the intervention group, 9.9% in the comparator group. Reason: treatment- related toxicity and its sequelae (<60% of estimated requirements for two consecutive weeks despite the use of ONS). Oral nutritional supplements were prescribed to 9.9% of patients in the comparator group. Reason: ethical reasons, to improve their protein- calorie intakes (food intake < 60% of estimated requirements for two consecutive weeks)	
	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA		
	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA		
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	Y	Quote: "The analysis compared patients, following a modified intention-to-treat principle. Then a series of supportive analyses of the primary endpoint were performed."	
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA		
	Risk of bias judgement	Low		
Bias due to missing outcome data	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	N	Comment: 86% available in the intervention group; 85% available in the comparator group. The ratio of participants with missing data to participants with events was 23/7 (3.29) for RT dose reduction or complete suspension, 23/20 (1.15) for ST dose reduction or complete suspension, and 23/25 (0.92) for composite RT and/or ST dose reduction or complete suspension.	

	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	РҮ	Quote: "Dropouts were not clinically and statistically different from patients remaining in the study, neither at baseline nor during follow- up (data not shown); thus we considered missingness to be at random."
	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NA	
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	NA	
	Risk of bias judgement	Low	
	4.1 Was the method of measuring the outcome inappropriate?	NI	
Bias in measurement of the outcome	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	Ν	Quote: "() tolerance to anti-cancer treatments was continuously monitored." Comment: Assessment opportunities were apparently the same for all participants.
	4.3 Were outcome assessors aware of the intervention received by study participants?	РҮ	Comment: It is unclear who measured this outcome, but the authors reported that outcome assessors of severity of mucositis were blinded and made no comment on this specific outcome.
	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?	N	Comment: This is an objective outcome.
	4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received?	NA	
	Risk of bias judgement	Low	
	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?	NI	Quote in protocol: "Feasibility of radiotherapy: number of interruptions >5 days; total duration (days); dose reduction" Comment: The way that it was pre- registered, it is hard to compare the intended analysis to the reported results.
Bias in selection of the reported result	5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain?	РҮ	Comment: Considering that these outcomes were part of the outcome domain "feasibility of radiotherapy", which included other measurements that were not reported. These outcomes favored the intervention group. It is unclear how the results would look like if on dose reduction was considered, not together with complete suspension. Also, the composite outcome of RT and/or ST reduction/complete suspension was the only statistically significant result.
	5.3 multiple analyses of the data?	NI	
	Risk of bias judgement		
Overall bias	Risk of bias judgement	High	

Outcome	Body weight (at end of treatment)	Study ID	Cereda 2018	Source	Journal article(s) with results of the trial; Trial protocol; Conference abstract(s) about the trial
Domain	Signaling question	n		Response	Description
Bias arising from the randomization process	1.1 Was the allocation sequence random?			Y	Quote: "Allocation to the two intervention groups was performed
	1.2 Was the allocation sequence concealed until participants were enrolled and assigned to interventions?			Y	according to a computer-generated random blocks randomization list (varying block sizes)." Quote: "The randomization list was prepared by a local statistician, who was not involved in the selection and enrollment of patients. Concealment was achieved by using sealed envelopes."
	1.3 Did baseline differences between intervention groups suggest a problem with the randomization process?			N	Comment: no apparent imbalances
	Risk of bias judge	ment		Low	
	2.1.Were participa	nts aware	of their	1011	
	assigned interventi	on during	the trial?	Y	
Bias due to deviations from intended interventions	2.2.Were carers and people delivering the interventions aware of participants' assigned intervention during the trial?			Y	Comment: non-blinded trial of nutritional intervention
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?			N	Comment: Artificial enteral nutrition was started in 9% of patients in the intervention group, 9.9% in the comparator group. Reason: treatment- related toxicity and its sequelae (<60% of estimated requirements for two consecutive weeks despite the use of ONS). Oral nutritional supplements were prescribed to 9.9% of patients in the comparator group. Reason: ethical reasons, to improve their protein- calorie intakes (food intake < 60% of estimated requirements for two consecutive weeks)
	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?			NA	
	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?			NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?			Y	Quote: "The analysis compared patients, following a modified intention-to-treat principle. Then a series of supportive analyses of the primary endpoint were performed."
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?			NA	
	Risk of bias judge	ement		Low	

Bias due to missing outcome data	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	N	Comment: 86% available in the intervention group; 85% available in the comparator group
	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	РҮ	Quote: "Dropouts were not clinically and statistically different from patients remaining in the study, neither at baseline nor during follow- up (data not shown); thus we considered missingness to be at random."
	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NA	
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	NA	
	Risk of bias judgement	Low	
Bias in measurement	4.1 Was the method of measuring the outcome inappropriate?	Ν	Quote: "Body weight and height were measured using a calibrated scale with a stadiometer according to standard procedures and BMI was calculated [27]. Specifically, at all time points (baseline, end of RT, 1 month and 3 months after the end of RT), body weight was measured (to the nearest 0.1 kg) in subjects wearing only undergarments using the same calibrated scale (Wunder Sa.bi. S.r.l., Milano, Italy)." [27] World Health Organization. Physical status: the use and interpretation of anthropometry. Report of a WHO Expert Committee. World Health Organ Tech Rep Ser 1995;854:1–452.
	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	Ν	Comment: assessment opportunities was the same for all participants.
	4.3 Were outcome assessors aware of the intervention received by study participants?	РҮ	Comment: It is unclear who measured this outcome, but the authors reported that outcome assessors of severity of mucositis were blinded and made no comment on this specific outcome.
	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?	Ν	Comment: This is an objective outcome and was measured in a standardized way.
	4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received?	NA	
	Risk of bias judgement	Low	
Bias in selection of the reported result	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?	Y	Quote in protocol: "Change in body weight at the end of radiotherapy (after 6 weeks)"
	5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain?	Ν	Comment: The result is unlikely to have been chosen on the basis of its results.

	5.3 multiple analyses of the data? Risk of bias judgement			N	Comment: The presented result corresponds to what was intended in the study protocol.
				Low	
Overall bias	Risk of bias judgement			Low	
Outcome	Adverse events of ONS	Study ID	Chitapana rux 2016	Source	Journal article(s) with results of the trial; Conference abstract(s) about the trial
Domain	Signaling questio	n		Response	Description
Bias arising from the randomization process	1.1 Was the allocation sequence random?			Y	Quote: "randomly assigned in a 1:1 ratio by a computer program"
	1.2 Was the allocation sequence concealed until participants were enrolled and assigned to interventions?			PN	method been implemented to achieve allocation concealment in the study? If yes, would you be able to describe it? Personal communication quote: "YES". "Sealed envelope".
	1.3 Did baseline d intervention group with the randomiz	ifferences os suggest a ation proce	between a problem ess?	N	Comment: there was a strong similarity between group in regard to sex, but this could be due to chance.
	Risk of bias judg	ement		High	
Bias due to deviations from intended interventions	2.1.Were participants aware of their assigned intervention during the trial?			Y	Comment: non blinded trial of
	2.2.Were carers and people delivering the interventions aware of participants' assigned intervention during the trial?			Y	nutritional intervention
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?			Ν	Comment: 7 patients withdrew from the study because of the taste of the supplements, so this was not judged to be related to the experimental context.
	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?			NA	
	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?			NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?			Y	Quote: "All randomized patients are included in the final intent to treat analysis." Comment: It is described as intention- to-treat, but the result in the table is presented alongside a sample size. Still, it would have been a modified intention to treat.
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?			NA	
	Risk of bias judg	ement		Low	
Bias due to missing outcome data	3.1 Were data for this outcome available for all, or nearly all, participants randomized?			PN	Comment: 65% available in the intervention group; 95% available in the comparator group.
	3.2 If N/PN/NI to 3 that result was not outcome data?	3.1: Is there biased by a	e evidence missing	Ν	Comment: none found
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	3.3 If N/PN to 3.2: the outcome depen	Could mis d on its tru	ssingness in 1e value?	Y	Comment: 6 participants in the intervention group were lost to follow-up because of the taste of the supplement. This characteristic is important to evaluate the supplement effectiveness.
	3.4 If Y/PY/NI to 3 missingness in the its true value?	3.3: Is it lik outcome d	cely that lepended on	Y	Comment: Reported reasons for missing outcome data provide evidence that missingness in the outcome depends on its true value (taste of the supplement). Differences between intervention groups were also identified.
	Risk of bias judge	ement		High	
	4.1 Was the metho outcome inappropri	d of measu riate?	uring the	PN	CTCAE
	4.2 Could measure ascertainment of the differed between in	ment or ne outcome ntervention	e have 1 groups?	PN	Comment: CTCAE at specific timepoints for all participants.
Bias in	4.3 Were outcome assessors aware of the intervention received by study participants?			Y	Comment: Non-blinded study.
of the outcome	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?			Y	Comment: Non-blinded study.
	4.5 If Y/PY/NI to 4 assessment of the of influenced by know received?	4.4: Is it lik outcome w wledge of i	kely that as ntervention	РҮ	Comment: Participants knew they were receiving the ONS and probably had been informed that adverse event might occur.
	Risk of bias judge	ement		High	
Bias in	5.1 Were the data t result analyzed in a specified analysis before unblinded o available for analy	that product accordance plan that w putcome da sis?	ed this with a pre- ras finalized ta were	NI	Comment: Protocol or analysis plan unavailable.
selection of the reported result	5.2 multiple out (e.g. scales, definit within the outcome	come meas ions, time e domain?	surements points)	NI	
	5.3 multiple ana	lyses of the	e data?	NI	
	Risk of bias judge	ement		Some concerns	
Overall bias	Risk of bias judge	ement		High	
Outcome	Completion of CCRT	Study ID	Chitapana rux 2016	Source	Journal article(s) with results of the trial; Conference abstract(s) about the trial
Domain	Signaling question	n		Response	Description
Bias arising	1.1 Was the allocation random?	tion sequer	nce	Y	Quote: "randomly assigned in a 1:1 ratio by a computer program" Personal communication: Has any
from the randomization process	1.2 Was the alloca concealed until par enrolled and assign	tion sequer ticipants w ned to inter	nce vere ventions?	PN	method been implemented to achieve allocation concealment in the study? If yes, would you be able to describe it?

			Personal communication quote: "YES". "Sealed envelope".
	1.3 Did baseline differences between intervention groups suggest a problem with the randomization process?	N	Comment: there was a strong similarity between group in regard to sex, but this could be due to chance.
	Risk of bias judgement	High	
	2.1.Were participants aware of their assigned intervention during the trial?	Y	Comment: non-blinded trial of
	2.2.Were carers and people delivering the interventions aware of participants' assigned intervention during the trial?	Y	nutritional intervention
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?	Ν	Comment: 7 patients withdrew from the study because of the taste of the supplements, so this was not judged to be related to the experimental context.
	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA	
Bias due to deviations from intended	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
interventions	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	Y	Quote: "All randomized patients are included in the final intent to treat analysis." Comment: It is described as intention- to-treat, but the result in the table is presented alongside a sample size. Still, it would have been a modified intention to treat.
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Low	
	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	PN	Comment: 30% available in the intervention group; 65% available in the comparator group. Unable to calculate the ratio of participants with missing data to participants with events because the number of events was not reported.
	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	Ν	Comment: none found
Bias due to missing outcome data	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	Y	Comment: 6 participants in the intervention group were lost to follow-up because of the taste of the supplement. This characteristic is important to evaluate the supplement effectiveness.
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	Y	Comment: Reported reasons for missing outcome data provide evidence that missingness in the outcome depends on its true value (taste of the supplement). Differences between intervention groups were also identified.

	Risk of bias judge	ement		High	
	4.1 Was the metho outcome inappropri	d of measu riate?	uring the	NI	
	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?			PN	Comment: Even though it was not adequately described, we judged it to be unlikely that the ascertainment of the outcomes has differed between groups.
Bias in measurement of the outcome	4.3 Were outcome the intervention rec participants?	assessors a ceived by s	aware of study	РҮ	Comment: It is unclear who measured this outcome, but since this is a non- blinded study, the assessor might be aware of intervention status.
	4.4 If Y/PY/NI to 4 of the outcome hav knowledge of inter	4.3: Could ve been inf	assessment luenced by ceived?	PN	Comment: This is an objective outcome.
	4.5 If Y/PY/NI to 4 assessment of the of influenced by know received?	4.4: Is it lik outcome w wledge of i	cely that as intervention	NA	
	Risk of bias judge	ement		Low	
Bias in	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?			NI	Comment: Protocol or analysis plan unavailable.
the reported result	5.2 multiple out (e.g. scales, definit within the outcome	come meas tions, time e domain?	surements points)	NI	
	5.3 multiple ana	lyses of the	e data?	NI	
	Risk of bias judgement			Some	
	Risk of blas judge	ement		concerns	
Overall bias	Risk of bias judge	ement ement		concerns High	
Overall bias	Risk of bias judge	ement ement		concerns High	
Overall bias Outcome	Risk of bias judge Risk of bias judge Quality of life (at end of treatment)	ement ement Study ID	Chitapana rux 2016	concerns High Source	Journal article(s) with results of the trial; Conference abstract(s) about the trial
Overall bias Outcome Domain	Risk of bias judge Risk of bias judge Quality of life (at end of treatment) Signaling question 1.1 Was the allocat random?	ement ement Study ID tion sequer	Chitapana rux 2016 nce	concerns High Source Response Y	Journal article(s) with results of the trial; Conference abstract(s) about the trial Description Quote: "randomly assigned in a 1:1 ratio by a computer program"
Overall bias Outcome Domain Bias arising from the randomization process	Risk of bias judge Risk of bias judge Quality of life (at end of treatment) Signaling question 1.1 Was the allocat random? 1.2 Was the allocat concealed until par enrolled and assign	ement ement Study ID tion sequer tion sequer ticipants w hed to inter	Chitapana rux 2016 nce nce vere rventions?	concerns High Source Response Y PN	Journal article(s) with results of the trial; Conference abstract(s) about the trial Description Quote: "randomly assigned in a 1:1 ratio by a computer program" Personal communication: Has any method been implemented to achieve allocation concealment in the study? If yes, would you be able to describe it? Personal communication quote: "YES". "Sealed envelope".
Overall bias Outcome Domain Bias arising from the randomization process	Risk of bias judge Risk of bias judge Quality of life (at end of treatment) Signaling question 1.1 Was the allocar random? 1.2 Was the allocar concealed until par enrolled and assign 1.3 Did baseline di intervention group with the randomiza	ement ement Study ID tion sequent tion sequent	Chitapana rux 2016 nce nce vere rventions?	Concerns High Source Response Y PN PN	Journal article(s) with results of the trial; Conference abstract(s) about the trial Description Quote: "randomly assigned in a 1:1 ratio by a computer program" Personal communication: Has any method been implemented to achieve allocation concealment in the study? If yes, would you be able to describe it? Personal communication quote: "YES". "Sealed envelope". Comment: there was a strong similarity between group in regard to sex, but this could be due to chance.
Overall bias Outcome Domain Bias arising from the randomization process	Risk of bias judge Risk of bias judge Quality of life (at end of treatment) Signaling question 1.1 Was the allocar random? 1.2 Was the allocar concealed until par enrolled and assign 1.3 Did baseline di intervention group with the randomiza Risk of bias judge	ement ement Study ID tion sequent tion sequent tion sequent tion sequent tion sequent tion sequent tion sequent	Chitapana rux 2016 nce vere evere eventions?	concerns High Source Response Y PN PN	Journal article(s) with results of the trial; Conference abstract(s) about the trial Description Quote: "randomly assigned in a 1:1 ratio by a computer program" Personal communication: Has any method been implemented to achieve allocation concealment in the study? If yes, would you be able to describe it? Personal communication quote: "YES". "Sealed envelope". Comment: there was a strong similarity between group in regard to sex, but this could be due to chance.
Overall bias Outcome Domain Bias arising from the randomization process	Risk of bias judge Risk of bias judge Quality of life (at end of treatment) Signaling question 1.1 Was the allocar random? 1.2 Was the allocar concealed until par enrolled and assign 1.3 Did baseline di intervention group with the randomiza Risk of bias judge 2.1.Were participan	ement ement Study ID tion sequent tion seque	Chitapana rux 2016 nce were eventions?	concerns High Source Response Y PN PN N N High	Journal article(s) with results of the trial; Conference abstract(s) about the trial Description Quote: "randomly assigned in a 1:1 ratio by a computer program" Personal communication: Has any method been implemented to achieve allocation concealment in the study? If yes, would you be able to describe it? Personal communication quote: "YES". "Sealed envelope". Comment: there was a strong similarity between group in regard to sex, but this could be due to chance.
Overall bias Outcome Domain Bias arising from the randomization process Bias due to deviations from intended	Risk of bias judge Risk of bias judge Quality of life (at end of treatment) Signaling question 1.1 Was the allocat random? 1.2 Was the allocat concealed until part enrolled and assign 1.3 Did baseline differentiation intervention group with the randomiza Risk of bias judge 2.1.Were participat assigned interventions at assigned	ement ement Study ID tion sequent tion sequent tion sequent ticipants when to inter ifferences to s suggest a ation proce ement nts aware of on during d people d ware of part on during	Chitapana rux 2016 nce nce vere eventions? obtween problem ess? of their the trial? elivering rticipants' the trial?	concerns High Source Response Y PN PN N N N High Y	Journal article(s) with results of the trial; Conference abstract(s) about the trial Description Quote: "randomly assigned in a 1:1 ratio by a computer program" Personal communication: Has any method been implemented to achieve allocation concealment in the study? If yes, would you be able to describe it? Personal communication quote: "YES". "Sealed envelope". Comment: there was a strong similarity between group in regard to sex, but this could be due to chance. Comment: non-blinded trial of nutritional intervention

	intervention that arose because of the experimental context?		to be related to the experimental context.
	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA	
	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	NI	Comment: For this specific outcome it is unclear if the results presented were obtained from intention-to-treat analysis or per-protocol (excluding participants that did not adhere to the intervention). In the full study both are presented, but this outcome is only available in a conference abstract.
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	Y	Quote: "One patient in group A withdrew consent, whereas 7 patients (35%) in group B withdrew from the study (due to intolerable of the taste of immune-enhanced nutrition in 6 patients, and due to the toxicity of CCRT in 1 patient)"
	Risk of bias judgement	High	
	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	N	Comment: 65% available in the intervention group; 95% available in the comparator group
	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	Ν	Comment: none found
Bias due to missing outcome data	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	Y	Comment: 6 participants in the intervention group were lost to follow-up because of the taste of the supplement. This characteristic is important to evaluate the supplement effectiveness.
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	Y	Comment: Reported reasons for missing outcome data provide evidence that missingness in the outcome depends on its true value (taste of the supplement). Differences between intervention groups were also identified.
	Risk of bias judgement	High	
	4.1 Was the method of measuring the outcome inappropriate?	Ν	Quote: "European Organization for Research and Treatment of Cancer (EORTC) QoL questionnaire (QLQ- C30 version 3.0)."
Bias in measurement	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	N	Quote: "All patients in this study answered the questionnaire on the first day and the last day of CCRT."
of the outcome	4.3 Were outcome assessors aware of the intervention received by study participants?	Y	Comment: quality of life is a participant-reported outcome.
	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by	Y	Comment: quality of life is a participant-reported outcome.

	4.5 If Y/PY/NI to 4 assessment of the o influenced by know received?	4.4: Is it lik outcome w wledge of i	cely that as ntervention	Y	The patient may hold a strong belief that the supplement might help, depending on how the supplement was described to him and what was written on the package. In addition, they now they are receiving something "extra", beyond nutritional counseling that the control group is also receiving.
	Risk of bias judge	ement		High	
Rias in	5.1 Were the data to result analyzed in a specified analysis before unblinded of available for analy	that product accordance plan that woutcome da sis?	ed this with a pre- as finalized ta were	NI	Comment: Protocol or analysis plan unavailable.
selection of the reported result	5.2 multiple out (e.g. scales, definit within the outcome	come meas tions, time e domain?	surements points)	PN	Comment: The result is unlikely to have been chosen on the basis of its results, even though no analysis plan was available.
	5.3 multiple ana	lyses of the	e data?	PN	Comment: Probably no, even though no analysis plan was available.
	Risk of bias judge	ement		Some	
Overall bias	Risk of bias judgement			High	High risk of bias because of missing outcomes and measurement of the outcome.
Outcome	Grade 3 mucositis, Dermatitis (at end of treatment)	Study ID	Chitapana rux 2016	Source	Journal article(s) with results of the trial; Conference abstract(s) about the trial
Domain	Signaling question	n		Response	Description
	1.1 Was the alloca	tion sequer	nce	V	Quote: "randomly assigned in a 1:1
Bias arising from the randomization process	1.1 Was the allocation sequence random? 1.2 Was the allocation sequence concealed until participants were enrolled and assigned to interventions?			PN	ratio by a computer program" Personal communication: Has any method been implemented to achieve allocation concealment in the study? If yes, would you be able to describe it? Personal communication quote: "YES". "Sealed envelope".
	1.3 Did baseline di intervention group with the randomiza	ifferences b s suggest a ation proce	problem ss?	N	Comment: there was a strong similarity between group in regard to sex, but this could be due to chance.
	Risk of bias judge	ement	0.1.1	High	
	2.1. were participa assigned interventi	nts aware of on during	of their the trial?	Y	
Bias due to deviations	2.2.Were carers an the interventions a assigned interventi	d people d ware of par	elivering rticipants' the trial?	Y	Comment: non-blinded trial of nutritional intervention
from intended interventions	2.3. If Y/PY/NI to deviations from the intervention that an experimental conte	2.1 or 2.2: e intended rose becaus ext?	Were there se of the	N	Comment: 7 patients withdrew from the study because of the taste of the supplements, so this was not judged to be related to the experimental context.

	-		
	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA	
	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	Y	Quote: "All randomized patients are included in the final intent to treat analysis." Comment: It is described as intention- to-treat, but the result in the table is presented alongside a sample size. Still, it would have been a modified intention to treat.
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Low	
	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	N	Comment: 30% available in the intervention group; 65% available in the comparator group. The ratio of participants with missing data to participants with events was 8/5 (1.6) for grade 3 mucositis, 8/1 (8.0) for dermatitis
	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	Ν	Comment: none found
Bias due to missing outcome data	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	Y	Comment: 6 participants in the intervention group were lost to follow-up because of the taste of the supplement. This characteristic is important to evaluate the supplement effectiveness.
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	Y	Comment: Reported reasons for missing outcome data provide evidence that missingness in the outcome depends on its true value (taste of the supplement). Differences between intervention groups were also identified.
	Risk of bias judgement	High	
	4.1 Was the method of measuring the outcome inappropriate?	Ν	Quote: "Common Terminology Criteria for Adverse Events (CTCAE), version 4.03"
	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	Ν	Quote: "() side effect of CCRT were recorded weekly."
Bias in measurement of the outcome	4.3 Were outcome assessors aware of the intervention received by study participants?	PY	Comment: It is unclear who measured this outcome, but since this is a non- blinded study, the assessor might be aware of intervention status.
	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?	РҮ	Comment: Even though the outcomes are measured according to a standard, it involves a judgement
1	A 5 If V/DV/NI to A A. Is it likely that		

	influenced by know	wledge of i	intervention		
	Risk of bias judge	ement		High	
	5.1 Were the data result analyzed in specified analysis before unblinded of available for analy	that produce accordance plan that w butcome da sis?	ced this e with a pre- vas finalized ta were	NI	Comment: Protocol or analysis plan unavailable.
Bias in selection of the reported result	5.2 multiple out (e.g. scales, definit within the outcome	come meas tions, time e domain?	surements points)	РҮ	Comment: The outcome domain was acute toxicities of CCRT and according to the method used, there were several grades for each outcome. Each outcome was presented in a different way either only grade 3, grade 4, or grades 3 and 4, or general occurrence.
	5.3 multiple ana	lyses of th	e data?	NI	
	Risk of bias judge	ement		High	
Overall bias	Risk of bias judge	ement		High	
Outcome	Body weight (at end of treatment)	Study ID	Chitapana rux 2016	Source	Journal article(s) with results of the trial; Conference abstract(s) about the trial
Domain	Signaling question	n		Response	Description
	1.1 Was the alloca random?	tion seque	nce	Y	Quote: "randomly assigned in a 1:1 ratio by a computer program"
Bias arising from the randomization process	1.2 Was the alloca concealed until par enrolled and assign	tion sequer rticipants v ned to inter	nce vere rventions?	PN	Personal communication: Has any method been implemented to achieve allocation concealment in the study? If yes, would you be able to describe it? Personal communication quote: "YES", "Sealed envelope".
	1.3 Did baseline di intervention group with the randomize	ifferences l s suggest a ation proce	between 1 problem ess?	N	Comment: there was a strong similarity between group in regard to sex, but this could be due to chance.
	Risk of bias judge	ement		High	
	2.1.Were participa	nts aware o	of their	Y	
	assigned interventi 2.2.Were carers an the interventions a assigned interventi	ion during d people d ware of pa ion during	the trial? elivering rticipants' the trial?	Y	Comment: non-blinded trial of nutritional intervention
Bias due to	2.3. If Y/PY/NI to deviations from the intervention that an experimental conte	2.1 or 2.2: e intended rose becaus ext?	Were there se of the	Ν	Comment: 7 patients withdrew from the study because of the taste of the supplements, so this was not judged to be related to the experimental context.
from intended interventions	2.4. If Y/PY to 2.3 deviations from in balanced between	: Were the tended inte groups?	se ervention	NA	
	2.5 If N/PN/NI to 2 deviations likely to outcome?	2.4: Were to have affe	these cted the	NA	
	2.6 Was an approp estimate the effect intervention?	riate analy of assignn	rsis used to ment to	Y	Quote: "All randomized patients are included in the final intent to treat analysis." Comment: It is described as intention- to-treat, but the result in the table is

			presented alongside a sample size. Still, it would have been a modified intention to treat.
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Low	
	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	N	Comment: 30% available in the intervention group; 65% available in the comparator group
	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	Ν	Comment: none found
Bias due to missing outcome data	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	Y	Comment: 6 participants in the intervention group were lost to follow-up because of the taste of the supplement. This characteristic is important to evaluate the supplement effectiveness.
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	Y	Comment: Reported reasons for missing outcome data provide evidence that missingness in the outcome depends on its true value (taste of the supplement). Differences between intervention groups were also identified.
	Risk of bias judgement	High	
	4.1 Was the method of measuring the outcome inappropriate?	NI	
	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	Ν	Quote: "Body weight and side effect of CCRT were recorded weekly."
Bias in measurement	4.3 Were outcome assessors aware of the intervention received by study participants?	РҮ	Comment: It is unclear who measured this outcome, but since this is a non- blinded study, the assessor might be aware of intervention status.
of the outcome	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?	PN	Comment: This is an objective outcome, probably measured in a standardized way using a scale.
	4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received?	NA	
	Risk of bias judgement	Low	
Bias in selection of	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?	NI	Comment: Protocol or analysis plan unavailable.
result	5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain?	PN	Comment: The result is unlikely to have been chosen on the basis of its results, even though no analysis plan was available.

	5.3 multiple analyses of the data?			PN	Comment: Probably no, even though no analysis plan was available.
	Risk of bias judgement			Some concerns	
Overall bias	Risk of bias judgement			High	High risk of bias because of missing outcomes.
Outcome	Quality of life (end of treatment)Study IDDing 2018			Source	Journal article(s) with results of the trial
Domain	Signaling question	n		Response	Description
Bias arising	1.1 Was the alloca random? 1.2 Was the alloca concealed until par enrolled and assign	tion sequer tion sequer ticipants w	nce nce vere	NI NI	Quote: "A prospective, randomized and comparative study was performed"
randomization process	1.3 Did baseline di intervention group with the randomiza	fferences b s suggest a ation proce	petween problem ess?	NI	Comment: Baseline characteristics are available only for participants included in the final analysis.
	Risk of bias judge	ement		Some concerns	
	2.1.Were participa	nts aware o	of their	Y	
	assigned intervention during the trial? 2.2. Were carers and people delivering the interventions aware of participants' assigned intervention during the trial?			Y	Comment: non-blinded trial of nutritional intervention
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?			N	Comment: None reported.
Bias due to	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?			NA	
from intended interventions	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?			NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?			РҮ	Comment: Even though it is not clearly described, it could be assumed that at least a modified intention to treat analysis was performed.
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?			NA	
	Risk of bias judge	ement		Low	
Bias due to missing	3.1 Were data for this outcome available for all, or nearly all, participants randomized?			N	Quote: "A total of 64 patients were enrolled, and 42 patients completed nutritional assessment as required. Among them, 23 were in the experimental group and 19 in the control group." Comment: 66% overall
Succome uata	3.2 If N/PN/NI to 3 that result was not outcome data?	3.1: Is there biased by a	e evidence missing	N	Comment: None reported.
	3.3 If N/PN to 3.2: the outcome depen	Could mis d on its tru	ssingness in ie value?	NI	

	3.4 If Y/PY/NI to 3.3: Is it lik missingness in the outcome do its true value?	ely that epended on	NI	
	Risk of bias judgement		High	
	4.1 Was the method of measu outcome inappropriate?	ring the	N	Quote: "The quality of life of patients was assessed using the European Cancer Research and Treatment Organization Quality of Life Core Scale QLQ-C30 and the Head and Neck Cancer Module Scale QLQ- H&N35."
Bias in	4.2 Could measurement or ascertainment of the outcome differed between intervention	have groups?	Ν	Quote: "The patient will be surveyed before treatment, every 2 weeks after the concurrent chemotherapy, and 3 months after the end of treatment."
measurement of the outcome	4.3 Were outcome assessors a the intervention received by suparticipants?	ware of tudy	Y	Comment: quality of life is a participant-reported outcome.
	4.4 If Y/PY/NI to 4.3: Could a of the outcome have been infl knowledge of intervention rec	assessment uenced by eived?	Y	Comment: quality of life is a participant-reported outcome.
	4.5 If Y/PY/NI to 4.4: Is it lik assessment of the outcome wa influenced by knowledge of in received?	ely that us ntervention	РҮ	Comment: Patients probably knew they were receiving an extra (supplement + counselling) beyond the usual care that the other group was also receiving.
	Risk of bias judgement		High	
Bias in	5.1 Were the data that produce result analyzed in accordance specified analysis plan that wa before unblinded outcome dat available for analysis?	ed this with a pre- as finalized a were	NI	
the reported result	5.2 multiple outcome measures (e.g. scales, definitions, time provide the outcome domain?	urements points)	NI	
	5.3 multiple analyses of the	data?	NI	
	Risk of bias judgement		Some	
Overall bias	Risk of bias judgement		High	
			0	
Outcome	Body weight (end of treatment)Study ID	Ding 2018	Source	Journal article(s) with results of the trial
Domain	Signaling question		Response	Description
	1.1 Was the allocation sequen	ce	NI	Quoto: "A progractive rendomized
Bias arising from the	1.2 Was the allocation sequen concealed until participants w enrolled and assigned to interv	ce ere ventions?	NI	and comparative study was performed"
randomization process	1.3 Did baseline differences b intervention groups suggest a with the randomization proces	etween problem ss?	NI	Comment: Baseline characteristics are available only for participants included in the final analysis.
	Risk of bias judgement		Some	
Bias due to deviations	2.1.Were participants aware o assigned intervention during t	f their he trial?	Y	Comment: non-blinded trial of
from intended interventions	2.2.Were carers and people de the interventions aware of par	elivering ticipants'	Y	nutritional intervention

	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?	Ν	Comment: None reported.
	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA	
	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	РҮ	Comment: Even though it is not clearly described, it could be assumed that at least a modified intention to treat analysis was performed.
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Low	
	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	N	Quote: "A total of 64 patients were enrolled, and 42 patients completed nutritional assessment as required. Among them, 23 were in the experimental group and 19 in the control group." Comment: 66% overall
Bias due to missing outcome data	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	N	Comment: None reported.
	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NI	
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	NI	
	Risk of bias judgement	High	
Bias in measurement of the outcome	4.1 Was the method of measuring the outcome inappropriate?	PN	Quote: "Body composition detection was performed using a Korean Biospace InbodyS10 body composition analyzer. Measurements include fat mass (FM), free fat mass (FFM), body cell mass (BCM), skeletal muscle mass (SM), and phase angle. , PA) and so on. All subjects were fasted 2 h before the measurement, and started to measure for 5 min. () The measurement of body composition instruments in this study was performed by a special person after unified training."
	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	Ν	Quote: "The patient was measured 1 time before treatment, 1 time per week after the start of concurrent chemoradiotherapy, and 1 time after 3 months after the end of treatment."
	4.3 Were outcome assessors aware of the intervention received by study participants?	PY	Comment: Since this is a non-blinded study, the assessor might be aware of intervention status.

	4.4 If Y/PY/NI to 4 of the outcome hav knowledge of inter	4.3: Could ve been inf vention re	assessment luenced by ceived?	PN	Comment: This is an objective outcome, apparently measured in a standardized way.
	4.5 If Y/PY/NI to 4 assessment of the o influenced by know received?	4.4: Is it lik outcome w wledge of i	tely that as ntervention	NA	
	Risk of bias judge	ement		Low	
Bias in	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?			NI	
the reported result	5.2 multiple out (e.g. scales, definit within the outcome	come meas cions, time e domain?	surements points)	NI	
	5.3 multiple ana	lyses of the	e data?	NI	
	Risk of bias judge	ement		Some	
Overall bias	Risk of bias judge	ment		High	
Over all blas	Risk of blas judge			mgn	
Outcome	Completion of regimen (end of treatment)	Study ID	Harada 2019	Source	Journal article(s) with results of the trial
Domain	Signaling question	n		Response	Description
	1.1 Was the alloca random?	tion sequer	nce	Y	Personal communication quote: "We made a list of patients and numbered
Bias arising from the randomization process	Bias arising rom the randomization process		N	them, & they were chosen by Random allocation; which means the patients for any particular treatment group or control group were chosen entirely by chance with no regard to the will of researchers or patients' condition and preference. This study is a randomized open study (no one was blinded)." Personal communication quote: "Unfortunately, in that study we didn't use any method to achieve allocation concealment."	
	1.3 Did baseline di intervention group with the randomiza	ifferences b s suggest a ation proce	between problem ss?	PN	Comment: Apparently no.
	Risk of bias judge	ement		High	
	2.1.Were participa	nts aware o	of their	Y	
	assigned interventi	on during	the trial?	-	Quote: "This study was a randomized
	2.2. Were carers an	d people d	elivering	V	open study (no one was blinded)."
Bias due to	assigned interventi	on during	the trial?	1	
deviations	2.3. If Y/PY/NI to	2.1 or 2.2:	Were there		
from intended	deviations from the	e intended		N	Comments Name reported
interventions	intervention that an	rose becaus	se of the	1N	Comment. None reported.
	experimental conte	ext?			
	2.4. If Y/PY to 2.3 deviations from in balanced between	: Were the tended inte groups?	se rvention	NA	

	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	РҮ	Comment: Probably yes because apparently there were no drop-outs.
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Low	
	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	РҮ	Comment: Apparently there were no drop-outs, even though there is no CONSORT flowchart.
Bias due to	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	NA	
outcome data	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NA	
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	NA	
	Risk of bias judgement	Low	
	4.1 Was the method of measuring the outcome inappropriate?	N	Quote: "() completion rates of scheduled (chemo) radiation treatments ()" Quote: "Treatment completion included patients who underwent all scheduled chemotherapy and >60 Gy of radiation without interruption."
Bias in measurement	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	PN	Comment: Timepoints not clearly described, but supposedly at end the end of treatment. We judged this outcome unlikely to have been measured in a different way for one of the groups.
of the outcome	4.3 Were outcome assessors aware of the intervention received by study participants?	Y	Quote: "This study was a randomized open study (no one was blinded)."
	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?	N	Comment: The outcome is objective.
	4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received?		
	Risk of bias judgement	Low	
Bias in	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?	NI	Comment: protocol not available.
the reported result	5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain?	PN	Comment: The result is unlikely to have been chosen on the basis of its results, even though no analysis plan was available.
	5.3 multiple analyses of the data?	PN	Comment: Probably no, even though no analysis plan was available.

	Risk of bias judgement			Some concerns	
Overall bias	Risk of bias judge	ement		High	
	June of Sims June 9			g	
Outcome	Interruption of regimen (end of treatment)	Study ID	Harada 2019	Source	Journal article(s) with results of the trial
Domain	Signaling question	n		Response	Description
	1.1 Was the alloca random?	tion sequer	nce	Y	Personal communication quote: "We made a list of patients and numbered
Bias arising from the randomization process	1.2 Was the allocation sequence concealed until participants were enrolled and assigned to interventions?			N	them, & they were chosen by Random allocation; which means the patients for any particular treatment group or control group were chosen entirely by chance with no regard to the will of researchers or patients' condition and preference. This study is a randomized open study (no one was blinded)." Personal communication quote: "Unfortunately, in that study we didn't use any method to achieve
	1.3 Did baseline di intervention group with the randomiza	Ifferences b s suggest a ation proce	petween problem ess?	PN	Comment: Apparently no.
	Risk of bias judgement			High	
	2.1.Were participants aware of their			v	
	assigned intervention during the trial?			Ŷ	
	2.2.Were carers and people delivering the interventions aware of participants' assigned intervention during the trial?			Y	open study (no one was blinded)."
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?			N	Comment: None reported.
Bias due to deviations	2.4. If Y/PY to 2.3 deviations from in balanced between	: Were the tended inte groups?	se rvention	NA	
from intended interventions	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?			NA	
	2.6 Was an approp estimate the effect intervention?	riate analy of assignm	sis used to nent to	РҮ	Comment: Probably yes because apparently there were no drop-outs.
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they ware randomized?			NA	
Risk of bias i		ement		Low	
Bias due to	3.1 Were data for t for all, or nearly al randomized?	his outcom l, participa	ne available nts	РҮ	Comment: Apparently there were no drop-outs, even though there is no CONSORT flowchart.
outcome data	3.2 If N/PN/NI to 2 that result was not outcome data?	3.1: Is there biased by 1	e evidence missing	NA	

					-
	3.3 If N/PN to 3.2:	Could mis	ssingness in	NA	
	the outcome dependence 3.4 If V/PV/NI to 3.2 If V/PV/NI	d on its tru 3 3. Is it lil	e value?		
	missingness in the	outcome d	lepended on	NA	
	its true value?		1		
	Risk of bias judge	ement		Low	
	4.1 Was the metho outcome inappropr	d of measu iate?	aring the	N	Quote: "() completion rates of scheduled (chemo) radiation treatments ()" Quote: "Treatment completion included patients who underwent all scheduled chemotherapy and >60 Gy of radiation without interruption." Comment: Not exactly describing what interruption meant, but supposedly any interruption.
Bias in measurement of the outcome	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?			PN	Comment: Timepoints not clearly described, but supposedly at end the end of treatment. We judged this outcome unlikely to have been measured in a different way for one of the groups.
	4.3 Were outcome assessors aware of the intervention received by study participants?			Y	Quote: "This study was a randomized open study (no one was blinded)."
	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?			Ν	Comment: The outcome is objective.
	4.5 If Y/PY/NI to 4 assessment of the c influenced by know received?	4.4: Is it lik outcome w wledge of i	kely that as intervention		
	Risk of bias judge	ement		Low	
Dias in	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?			NI	Comment: protocol not available.
selection of the reported result	5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain?			PN	Comment: The result is unlikely to have been chosen on the basis of its results, even though no analysis plan was available.
	5.3 multiple ana	lyses of th	e data?	PN	Comment: Probably no, even though
	Risk of bias judge	ment		Some	
0				concerns	
Overall Dias	KISK OF DIAS JUDGE	ment		нign	
Outcome	Oral mucositis grades 1 or 2, grades 3 or 4 (end of treatment)	Study ID	Harada 2019	Source	Journal article(s) with results of the trial
Domain	Signaling question	n		Response	Description
Bias arising	1.1 Was the allocat	tion sequer	nce	Y	Personal communication quote: "We
TROM tho	random?				made a list of natients and numbered

randomization process	1.2 Was the allocation sequence concealed until participants were enrolled and assigned to interventions?	Ν	them, & they were chosen by Random allocation; which means the patients for any particular treatment group or control group were chosen entirely by chance with no regard to the will of researchers or patients' condition and preference. This study is a randomized open study (no one was blinded)." Personal communication quote: "Unfortunately, in that study we didn't use any method to achieve allocation concealment."
	1.3 Did baseline differences between intervention groups suggest a problem with the randomization process?	PN	Comment: Apparently no.
	Risk of bias judgement	High	
	2.1.Were participants aware of their	v	
	assigned intervention during the trial? 2.2.Were carers and people delivering the interventions aware of participants'	Y	Quote: "This study was a randomized open study (no one was blinded)."
	assigned intervention during the trial? 2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?	N	Comment: None reported.
Bias due to deviations	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA	
from intended interventions	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	РҮ	Comment: Probably yes because apparently there were no drop-outs.
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Low	
	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	РҮ	Comment: Apparently there were no drop-outs, even though there is no CONSORT flowchart.
Bias due to	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	NA	
outcome data	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NA	
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	NA	
	Risk of bias judgement	Low	

	4.1 Was the method of measuring the outcome inappropriate?	PN	Quote: "Common Terminology Criteria for Adverse Events (CTCAE) version 4.0 (National Cancer Institute CTCAE v4.0)." Quote: "Resident physicians and radiologists collected and documented various data of patients including the severity of mucositis, nutritional status, and efficacy of RT/CRT treatment. Oral mucositis grade was assessed by independent physicians who compared their findings with patients' personal assessment of the mouth and throat soreness, pain level, and the activity score recorded by the patients on a daily basis."
Bias in measurement of the outcome	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	Ν	Quote: "Resident physicians and radiologists collected and documented various data of patients including the severity of mucositis, nutritional status, and efficacy of RT/CRT treatment. Oral mucositis grade was assessed by independent physicians who compared their findings with patients' personal assessment of the mouth and throat soreness, pain level, and the activity score recorded by the patients on a daily basis."
	4.3 Were outcome assessors aware of the intervention received by study participants?	Y	Quote: "This study was a randomized open study (no one was blinded)."
	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?	Y	Quote: "Oral mucositis grade was assessed by independent physicians who compared their findings with patients' personal assessment of the mouth and throat soreness, pain level, and the activity score recorded by the patients on a daily basis." Comment: The assessment involves a judgement and was done by independent physicians taking into consideration the patients perception of symptoms.
	4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention	РҮ	comment: Participants and physicians knew that the intervention group were receiving an extra besides
	received? Risk of higs indgement	High	usual care.
Bias in selection of the reported result	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?	NI	Comment: protocol not available.
	5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain?	PN	Comment: The result is unlikely to have been chosen on the basis of its results, even though no analysis plan was available.

	5.3 multiple analyses of the data?		PN	Comment: Probably no, even though no analysis plan was available.	
	Risk of bias judge	ement		Some concerns	
Overall bias	Risk of bias judge	ement		High	
Outcome	Body weight	Study ID	Harada 2019	Source	Journal article(s) with results of the trial
Domain	Signaling question	n		Response	Description
	1.1 Was the alloca random?	tion sequer	nce	Y	Personal communication quote: "We made a list of patients and numbered them, & they were chosen by
Bias arising from the randomization process	1.2 Was the alloca concealed until par enrolled and assign	tion sequer rticipants w ned to inter	nce vere ventions?	N	Random allocation; which means the patients for any particular treatment group or control group were chosen entirely by chance with no regard to the will of researchers or patients' condition and preference. This study is a randomized open study (no one was blinded)." Personal communication quote: "Unfortunately, in that study we didn't use any method to achieve allocation concealment."
	1.3 Did baseline differences between intervention groups suggest a problem with the randomization process?			PN	Comment: Apparently no.
	Risk of bias judgement			High	
	2.1.Were participants aware of their			v	
	assigned intervention during the trial?			I	Quote: "This study was a randomized
	2.2.Were carers and people delivering the interventions aware of participants' assigned intervention during the trial?			Y	open study (no one was blinded)."
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?			N	Comment: None reported.
Bias due to deviations	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?			NA	
from intended interventions	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?			NA	
	2.6 Was an approp estimate the effect intervention?	riate analy of assignm	sis used to nent to	РҮ	Comment: Probably yes because apparently there were no drop-outs.
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they			NA	
	Risk of bias judge	ement		Low	
Bias due to	3.1 Were data for t for all, or nearly al randomized?	his outcom l, participa	ne available .nts	РҮ	Comment: Apparently there were no drop-outs, even though there is no CONSORT flowchart.
missing outcome data	3.2 If N/PN/NI to 2 that result was not outcome data?	3.1: Is there biased by	e evidence missing	NA	

	3.3 If N/PN to 3.2: the outcome depen	Could mis	ssingness in te value?	NA	
	3.4 If Y/PY/NI to 3 missingness in the its true value?	3.3: Is it lik outcome d	cely that lepended on	NA	
	Risk of bias judge	ement		Low	
	4.1 Was the method of measuring the			NI	
	4.2 Could measure ascertainment of th differed between in	ment or ne outcome nterventior	e have a groups?	N	Quote: "nutritional status before and after (chemo) radiation was investigated in terms of body weight and levels of total protein and C- reactive protein (CRP) in blood serum"
Bias in measurement	4.3 Were outcome the intervention rec participants?	assessors a ceived by s	aware of study	Y	Quote: "This study was a randomized open study (no one was blinded)."
of the outcome	f the outcome 4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?		PN	Comment: even though the method of assessment is unclear, this outcome is objective and usually measured in a standardized way.	
	4.5 If Y/PY/NI to 4 assessment of the of influenced by know received?	4.4: Is it lik outcome w wledge of i	cely that as ntervention	NA	
	Risk of bias judgement			Low	
	5.1 Were the data t result analyzed in a specified analysis before unblinded o available for analy	hat product accordance plan that w putcome da	e with a pre- ras finalized ta were	NI	Comment: protocol not available.
Bias in selection of the reported result	5.2 multiple out (e.g. scales, definit within the outcome	come meas ions, time e domain?	surements points)	PN	Comment: The result is unlikely to have been chosen on the basis of its results, even though no analysis plan was available.
	5.3 multiple ana	lyses of th	e data?	PN	Comment: Probably no, even though no analysis plan was available.
	Risk of bias judgement			Some	
Overall bias	Risk of bias judge	ement		High	
	,				
Outcome	Adverse effects of ONS	Study ID	Jiang 2019	Source	Journal article(s) with results of the trial; Trial protocol
Domain	Signaling question	n		Response	Description
	1.1 Was the allocation for the allocation of the second se	tion seque	nce	Y	Quote: "() patients were assigned to the ONS group ($n = 50$) and
Bias arising from the randomization process	1.2 Was the allocation sequence concealed until participants were enrolled and assigned to interventions?			РҮ	control group $(n = 50)$ according to a computer-generated randomization sequence" Quote: "The randomization list was prepared by a local statistician, who was not involved in the selection and enrollment of patients."
	1.3 Did baseline di intervention group with the randomiza	fferences l s suggest a ation proce	problem ess?	N	Comment: Apparently no.
	Risk of bias judgement			Low	

	2.1.Were participants aware of their assigned intervention during the trial?	Y	Quote: "Blind method was not used
Bins due to	2.2.Were carers and people delivering the interventions aware of participants' assigned intervention during the trial?	Y	in this study."
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?	N	Quote: "Parenteral nutritional support with glucose was provided for patients whose oral consumption was severely compromised due to CRT- induced toxicity, in order to help them continue therapy." Comment: We considered this to reflect usual practice and not to be related to the experimental context.
deviations from intended interventions	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA	
	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	Y	Quote: "All patients were included in the intention- to-treat (ITT) analysis, and 95 patients were included in the efficacy analysis."
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Low	
	Risk of bias judgement 3.1 Were data for this outcome available for all, or nearly all, participants randomized?	Low PN	95% overall (94% in the intervention group and 96% in the comparator group). The ratio of participants with missing data to participants with events was 2/3 (0.66) for severe nausea. Actually 5 participants withdrawn from the study, but since 3 of them were the ones experiencing adverse events, we did not count them in the ratio.
Bias due to missing	Risk of bias judgement 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	Low PN N	 95% overall (94% in the intervention group and 96% in the comparator group). The ratio of participants with missing data to participants with events was 2/3 (0.66) for severe nausea. Actually 5 participants withdrawn from the study, but since 3 of them were the ones experiencing adverse events, we did not count them in the ratio. Comment: None reported.
Bias due to missing outcome data	Risk of bias judgement 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	Low PN N PY	 95% overall (94% in the intervention group and 96% in the comparator group). The ratio of participants with missing data to participants with events was 2/3 (0.66) for severe nausea. Actually 5 participants withdrawn from the study, but since 3 of them were the ones experiencing adverse events, we did not count them in the ratio. Comment: None reported. Comment: Reasons for drop-outs were only reported for the intervention group. Since it was related to adverse events of the supplement, we judged it to be influenced by its true value.
Bias due to missing outcome data	Risk of bias judgement 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	Low PN N PY PY	 95% overall (94% in the intervention group and 96% in the comparator group). The ratio of participants with missing data to participants with events was 2/3 (0.66) for severe nausea. Actually 5 participants withdrawn from the study, but since 3 of them were the ones experiencing adverse events, we did not count them in the ratio. Comment: None reported. Comment: Reasons for drop-outs were only reported for the intervention group. Since it was related to adverse events of the supplement, we judged it to be influenced by its true value. Comment: Proportion of missing data is similar between groups, but reasons in the intervention group are related to adverse events related to the supplement.
Bias due to missing outcome data	Risk of bias judgement 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement	Low PN N PY PY High	 95% overall (94% in the intervention group and 96% in the comparator group). The ratio of participants with missing data to participants with events was 2/3 (0.66) for severe nausea. Actually 5 participants withdrawn from the study, but since 3 of them were the ones experiencing adverse events, we did not count them in the ratio. Comment: None reported. Comment: Reasons for drop-outs were only reported for the intervention group. Since it was related to adverse events of the supplement, we judged it to be influenced by its true value. Comment: Proportion of missing data is similar between groups, but reasons in the intervention group are related to adverse events related to the supplement.

Bias in measurement of the outcome	 4.2 Could measure ascertainment of the differed between in 4.3 Were outcome the intervention re participants? 	ement or ne outcome ntervention assessors a ceived by s	e have a groups? aware of study	N Y	Quote: "Patients were examined once a week to assess the severity of mucositis by the same radiation oncologist who was blinded to the intervention allocation. Other adverse events were monitored and recorded during the CRT." Comment: non-blinded trial of nutritional intervention
	4.4 If Y/PY/NI to of the outcome hav knowledge of inter	4.3: Could ve been inf evention re-	assessment luenced by ceived?	Y	Comment: This is a participant- reported outcome.
	4.5 If Y/PY/NI to assessment of the cinfluenced by know received?	4.4: Is it lik outcome w wledge of i	kely that as ntervention	РҮ	Comment: Participants knew they were receiving the ONS and probably had been informed that adverse event might occur.
	Risk of bias judge	ement		High	
Bias in	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?				Comment: The protocol is available, but no further detail about the outcomes other than their names is provided.
selection of the reported result	selection of the reported result5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain?			NI	Comment: No information about time points in the protocol.
	5.3 multiple ana	lyses of the	e data?	NI	Comment: No information about the analysis in the protocol.
	Risk of bias judge	ement		Some concerns	
Overall bias	Risk of bias judge	ement	1	High	
Outcome	CT incomplete (end of treatment)	Study ID	Jiang 2019	Source	Journal article(s) with results of the trial; Trial protocol
Domain	Signaling questio	n		Response	Description
	1.1 Was the alloca random?	tion seque	nce	Y	Quote: "() patients were assigned to the ONS group ($n = 50$) and
Bias arising from the randomization process	1.2 Was the alloca concealed until pa enrolled and assign	tion sequer rticipants v ned to inter	nce vere ventions?	РҮ	control group (n = 50) according to a computer-generated randomization sequence" Quote: "The randomization list was prepared by a local statistician, who was not involved in the selection and enrollment of patients."
	1.3 Did baseline d intervention group with the randomiz	ifferences l s suggest a ation proce	petween problem ess?	N	Comment: Apparently no.
	Risk of bias judge	ement		Low	
Bias due to deviations	2.1.Were participa assigned intervent	nts aware of the second s	of their the trial?	Y	Ouote: "Blind method was not used
from intended interventions	2.2.Were carers an the interventions a assigned intervent	d people d ware of pation during	elivering rticipants' the trial?	Y	in this study."

	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?	N	Quote: "Parenteral nutritional support with glucose was provided for patients whose oral consumption was severely compromised due to CRT- induced toxicity, in order to help them continue therapy." Comment: We considered this to reflect usual practice and not to be related to the experimental context.
	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA	
	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	Y	Quote: "All patients were included in the intention- to-treat (ITT) analysis, and 95 patients were included in the efficacy analysis."
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Low	
Bias due to missing	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	Y	95% overall (94% in the intervention group and 96% in the comparator group). The ratio of participants with missing data to participants with events was 5/21 (0.24).
	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	NA	
outcome data	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NA	
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	NA	
	Risk of bias judgement	Low	
	4.1 Was the method of measuring the outcome inappropriate?	PN	Comment: No detail is given, but given the nature of the outcome it could be assumed that it was adequate.
Bias in measurement of the outcome	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	PN	Comment: No detail is given, but given the nature of the outcome it could be assumed that it did not differed between groups.
	4.3 Were outcome assessors aware of the intervention received by study participants?	Y	Quote: "Blind method was not used in this study."
	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?	N	Comment: The outcome is objective.
	4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received?		
	Risk of bias judgement	Low	

Bias in	5.1 Were the data result analyzed in specified analysis before unblinded of available for analy	that produc accordance plan that w outcome da rsis?	e with a pre- ras finalized ta were	NI	Comment: The protocol is available, but no further detail about the outcomes other than their names is provided.
selection of the reported result	5.2 multiple out (e.g. scales, definit within the outcome	come meas tions, time e domain?	surements points)	NI	Comment: No information about time points in the protocol.
	5.3 multiple ana	lyses of th	e data?	NI	Comment: No information about the analysis in the protocol.
Risk of bias judgement				Some concerns	
Overall bias	Risk of bias judg	ement	1	Some concerns	
Outcome	RT interruption (end of treatment)	Study ID	Jiang 2019	Source	Journal article(s) with results of the trial; Trial protocol
Domain	Signaling questio	n		Response	Description
	1.1 Was the alloca random?	tion sequer	nce	Y	Quote: "() patients were assigned to the ONS group ($n = 50$) and
Bias arising from the randomization process	1.2 Was the alloca concealed until pa enrolled and assign	tion sequer rticipants v ned to inter	nce vere ventions?	РҮ	control group (n = 50) according to a computer-generated randomization sequence" Quote: "The randomization list was prepared by a local statistician, who was not involved in the selection and enrollment of patients."
	1.3 Did baseline di intervention group with the randomize	ifferences l s suggest a ation proce	petween problem ss?	Ν	Comment: Apparently no.
	Risk of bias judge	ement		Low	
	2.1.Were participa	nts aware o	of their	Y	
	2.2.Were carers an the interventions a assigned intervent	id people d ware of pation during	the trial? elivering rticipants' the trial?	Y	Quote: "Blind method was not used in this study."
Bias due to deviations	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?			N	Quote: "Parenteral nutritional support with glucose was provided for patients whose oral consumption was severely compromised due to CRT- induced toxicity, in order to help them continue therapy." Comment: We considered this to reflect usual practice and not to be related to the experimental context.
interventions	2.4. If Y/PY to 2.3 deviations from in balanced between	: Were the tended inte groups?	se rvention	NA	
	2.5 If N/PN/NI to deviations likely to outcome?	2.4: Were to have affe	these cted the	NA	
	2.6 Was an approp estimate the effect intervention?	oriate analy of assignn	sis used to nent to	Y	Quote: "All patients were included in the intention- to-treat (ITT) analysis, and 95 patients were included in the efficacy analysis."
	2.7 If N/PN/NI to potential for a sub-	2.6: Was tł stantial imp	nere bact (on the	NA	

	result) of the failure to analyz participants in the group to wh were randomized?	e hich they		
	Risk of bias judgement		Low	
	3.1 Were data for this outcom for all, or nearly all, participar randomized?	e available nts	N	95% overall (94% in the intervention group and 96% in the comparator group). The ratio of participants with missing data to participants with events was 5/4 (1.25).
	3.2 If N/PN/NI to 3.1: Is there that result was not biased by r outcome data?	e evidence nissing	Ν	Comment: None reported.
Bias due to missing outcome data	3.3 If N/PN to 3.2: Could mis the outcome depend on its tru	singness in e value?	РҮ	Comment: Reasons for drop-outs were only reported for the intervention group. Since it was related to adverse events of the supplement, we judged it to be influenced by its true value.
	3.4 If Y/PY/NI to 3.3: Is it lik missingness in the outcome do its true value?	ely that epended on	РҮ	Comment: Proportion of missing data is similar between groups, but reasons in the intervention group are related to adverse events related to the supplement.
	Risk of bias judgement		High	
	4.1 Was the method of measu outcome inappropriate?	ring the	PN	Comment: No detail is given, but given the nature of the outcome it could be assumed that it was adequate.
	4.2 Could measurement or ascertainment of the outcome differed between intervention	have groups?	PN	Comment: No detail is given, but given the nature of the outcome it could be assumed that it did not differed between groups.
Bias in measurement of the outcome	4.3 Were outcome assessors a the intervention received by s participants?	ware of tudy	Y	Quote: "Blind method was not used in this study."
	4.4 If Y/PY/NI to 4.3: Could a of the outcome have been infl knowledge of intervention rec	assessment uenced by eeived?	Ν	Comment: The outcome is objective.
	4.5 If Y/PY/NI to 4.4: Is it lik assessment of the outcome wa influenced by knowledge of in received?	ely that as ntervention		
	Risk of bias judgement		Low	
Rias in	5.1 Were the data that produc result analyzed in accordance specified analysis plan that wa before unblinded outcome dat available for analysis?	ed this with a pre- as finalized a were	NI	Comment: The protocol is available, but no further detail about the outcomes other than their names is provided.
selection of the reported result	5.2 multiple outcome meas (e.g. scales, definitions, time p within the outcome domain?	urements points)	NI	Comment: No information about time points in the protocol.
	5.3 multiple analyses of the	e data?	NI	Comment: No information about the analysis in the protocol.
	Risk of bias judgement		concerns	
Overall bias	Risk of bias judgement		High	
			_	

Outcome	Quality of life (end of treatment)	Study ID	Jiang 2019	Source	Journal article(s) with results of the trial; Trial protocol
Domain	Signaling question	n		Response	Description
	1.1 Was the alloca random?	tion seque	nce	Y	Quote: "() patients were assigned to the ONS group ($n = 50$) and
Bias arising from the randomization process	1.2 Was the alloca concealed until par enrolled and assign	tion sequer rticipants v ned to inter	nce vere rventions?	РҮ	control group (n = 50) according to a computer-generated randomization sequence" Quote: "The randomization list was prepared by a local statistician, who was not involved in the selection and enrollment of patients."
	1.3 Did baseline di intervention group with the randomiza	ifferences l s suggest a ation proce	between 1 problem ess?	Ν	Comment: Apparently no.
	Risk of bias judge	ement		Low	
	2.1.Were participa	nts aware	of their	Y	
	2.2.Were carers an the interventions a assigned interventi	d people d ware of pa on during	the trial? elivering rticipants' the trial?	Y	Quote: "Blind method was not used in this study."
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?			N	Quote: "Parenteral nutritional support with glucose was provided for patients whose oral consumption was severely compromised due to CRT- induced toxicity, in order to help them continue therapy." Comment: We considered this to reflect usual practice and not to be related to the experimental context.
deviations from intended interventions	2.4. If Y/PY to 2.3 deviations from in balanced between	: Were the tended inte groups?	se ervention	NA	
	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?			NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?			Y	Quote: "All patients were included in the intention- to-treat (ITT) analysis, and 95 patients were included in the efficacy analysis."
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?			NA	
	Risk of bias judge	ement		Low	
	3.1 Were data for t for all, or nearly al randomized?	his outcon l, participa	ne available ints	Y	95% overall (94% in the intervention group and 96% in the comparator group)
Bias due to missing	3.2 If N/PN/NI to that result was not outcome data?	3.1: Is ther biased by	e evidence missing	NA	
outcome data	3.3 If N/PN to 3.2: the outcome dependence	Could mis	ssingness in ue value?	NA	
	3.4 If Y/PY/NI to missingness in the its true value?	outcome d	kely that lepended on	NA	

	Risk of bias judgement			Low	
Bias in measurement of the outcome	4.1 Was the metho outcome inappropr	d of measu riate?	uring the	N	Quote: "QOL was assessed by the European Organization for the Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ-C30) and the EORTC Head and Neck module (EORTC QLQ-H&N35). Raw scores obtained from the EORTC questionnaires were transformed into scores ranging from 0 to 100 according to the scoring procedures"
	4.2 Could measure ascertainment of th differed between in	ment or ne outcome ntervention	e have a groups?	N	Quote: "Data including weight, BMI, body composition, laboratory parameters, nutritional status and QOL were measured and collected at the end of CRT and 3 months after the end of CRT."
	4.3 Were outcome the intervention re- participants?	assessors a ceived by s	aware of study	Y	Quote: "Blind method was not used in this study."
	4.4 If Y/PY/NI to 4 of the outcome hav knowledge of inter	4.3: Could ve been inf vention rec	assessment luenced by ceived?	РҮ	Comment: The outcome is subjective.
	4.5 If Y/PY/NI to 4 assessment of the c influenced by know received?	4.4: Is it lik outcome w wledge of i	cely that as ntervention	РҮ	Comment: Patients probably knew they were receiving an extra beyond the general advice that the other group was also receiving.
	Risk of bias judgement			High	
	5.1 Were the data the specified analysis before unblinded of available for analysis	that product accordance plan that w putcome da sis?	ed this with a pre- ras finalized ta were	NI	Comment: The protocol is available, but no further detail about the outcomes other than their names is provided.
Bias in selection of the reported	5.2 multiple out (e.g. scales, definit within the outcome	come meas ions, time e domain?	surements points)	NI	Comment: No information about time points in the protocol.
result	5.3 multiple ana	lyses of the	e data?	NI	Comment: No information about the analysis in the protocol. The outcome could have been analyzed in many ways.
	Risk of bias judge	ement		Some concerns	
Overall bias	Risk of bias judge	ement		High	
Outcome	Body weight (whithin 3 days before the end of treatment)	Study ID	Jiang 2019	Source	Journal article(s) with results of the trial; Trial protocol
Domain	Signaling question	n		Response	Description
Bias arising	1.1 Was the alloca random?	tion sequer	nce	Y	Quote: "() patients were assigned to the ONS group ($n = 50$) and control group ($n = 50$) according to a
from the randomization process	1.2 Was the allocation sequence concealed until participants were enrolled and assigned to interventions?			РҮ	computer-generated randomization sequence" Quote: "The randomization list was prepared by a local statistician, who was not involved in the selection and

			enrollment of patients."
	1.3 Did baseline differences between intervention groups suggest a problem with the randomization process?	N	Comment: Apparently no.
	Risk of bias judgement	Low	
Bias due to	2.1.Were participants aware of their assigned intervention during the trial?	Y	Ouote: "Blind method was not used
	2.2.Were carers and people delivering the interventions aware of participants' assigned intervention during the trial?	Y	in this study."
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?	N	Quote: "Parenteral nutritional support with glucose was provided for patients whose oral consumption was severely compromised due to CRT- induced toxicity, in order to help them continue therapy." Comment: We considered this to reflect usual practice and not to be related to the experimental context.
deviations from intended interventions	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA	
	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	Y	Quote: "All patients were included in the intention- to-treat (ITT) analysis, and 95 patients were included in the efficacy analysis."
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Low	
	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	Y	95% overall (94% in the intervention group and 96% in the comparator group)
Bias due to	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	NA	
outcome data	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NA	
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	NA	
	Risk of bias judgement	Low	
Pies in	4.1 Was the method of measuring the outcome inappropriate?	Ν	Quote: "Body weight and height were measured using the same electric scale. Patients were asked to remove their outwears and shoes."
Bias in measurement of the outcome	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	N	Quote: "Data including weight, BMI, body composition, laboratory parameters, nutritional status and QOL were measured and collected at the end of CRT and 3 months after the end of CRT."

	4.3 Were outcome assessors aware of the intervention received by study participants?			Y	Quote: "Blind method was not used in this study."
	4.4 If Y/PY/NI to 4 of the outcome hav knowledge of inter	4.3: Could ve been inf vention re	assessment luenced by ceived?	PN	Comment: even though the method of assessment is unclear, this outcome is objective and usually measured in a standardized way.
	4.5 If Y/PY/NI to 4 assessment of the of influenced by know received?	4.4: Is it lik outcome w wledge of i	cely that as intervention	NA	
	Risk of bias judge	ement		Low	
5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?				NI	Comment: The protocol is available, but no further detail about the outcomes other than their names is provided.
Bias in selection of the reported	5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain?			NI	Comment: No information about time points in the protocol.
result	5.3 multiple analyses of the data?			NI	Comment: No information about the analysis in the protocol. The outcome could have been analyzed in many ways.
	Risk of bias judgement			Some concerns	
Overall bias	Risk of bias judgement			Some concerns	It does not seem that there was bias in the selection of reported results, but this cannot be proven with the information provided. We attempted to contact study authors.
					, , , , , , , , , , , , , , , , , , ,
Outcome	Mortality (longest follow- up: 6 months)	Study ID	Moriarty 1989	Source	Journal article(s) with results of the trial
Domain	Signaling question	n		Response	Description
Domain	1 1 Was the allocat	tion seque	200	ntesponse	
	random?	uon sequei	lice	NI	
Bias arising	1.2 Was the allocated until participation of the second se	tion sequer ticipants v ned to inter	nce vere ventions?	NI	
from the randomization process	1.3 Did baseline differences between intervention groups suggest a problem with the randomization process?			Y	Comment: The absence of key baseline characteristics (only sex, tumor site, age and height are reported) provide reasons to suspect that the randomization process was problematic.
	Risk of bias judge	ement		High	
	2.1.Were participa	nts aware o	of their	v	
Bias due to deviations	assigned interventi 2.2.Were carers an the interventions a assigned interventi	on during d people d ware of pa on during	the trial? elivering rticipants' the trial?	Y Y	Comment: non-blinded trial of nutritional intervention
interventions	2.3. If Y/PY/NI to deviations from the intervention that an experimental conte	2.1 or 2.2: e intended cose becaus ext?	Were there se of the	NI	

	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA	
	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	РҮ	Comment: Even though it is not clearly described, it could be assumed that an intention to treat analysis was performed. At the end of treatment, apparently data for all patients were available.
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Some concerns	
	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	РҮ	Comment: Apparently data for all participants was available, but it was not adequately and explicitly reported.
Bias due to missing	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	NA	
outcome data	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NA	
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	NA	
	Risk of bias judgement	Low	
	4.1 Was the method of measuring the outcome inappropriate?	NI	
	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	PN	Comment: We judged this to be unlikely based on the nature of the outcome.
Bias in	4.3 Were outcome assessors aware of the intervention received by study participants?	Y	Comment: Non-blinded study.
of the outcome	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?	Ν	Comment: The outcome is objective.
	4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received?	NA	
	Risk of bias judgement	Low	
Bias in selection of	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?	NI	
result	5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain?	NI	
	5.3 multiple analyses of the data?	NI	

	Risk of bias judgement			Some concerns	
Overall bias	Risk of bias judge	ement		High	
Outcome	Adverse effects	Study ID	Nayel 1992	Source	Journal article(s) with results of the trial
Domain	Signaling question			Response	Description
	1.1 Was the allocation random?	tion seque	nce	NI	
Bias arising from the randomization process	concealed until par enrolled and assign	tion sequer ticipants v red to inter	nce vere rventions?	NI	
	1.3 Did baseline di intervention group with the randomiza	fferences l s suggest a ation proce	between a problem ess?	PN	Comment: Even though many important variables were not reported at baseline, we answered this question as "probably not", because those variables were also not reported in the other timepoints (e.g. body weight was only presented as % change)
	Risk of bias judge	ement		Some	
	2.1.Were participa	nts aware	of their	concerns	
	assigned intervention during the trial?			Y	Unblinded trial of nutritional
	2.2.Were carers and people delivering the interventions aware of participants' assigned intervention during the trial?			РҮ	intervention.
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?			PN	None reported.
Bias due to deviations	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?			NA	
from intended interventions	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?			NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?			РҮ	Apparently all participants completed the study and were included in the analysis.
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?			NA	
	Risk of bias judge	ement		Low	
Bias due to missing	3.1 Were data for this outcome available for all, or nearly all, participants randomized?			Y	Quote: "were randomly allocated () to receive either radiotherapy alone (12 patients) or radiotherapy plus oral nutritional oral supplementation (11 patients)" Comment: Data for all randomized patients are presented.
outcome data	3.2 If N/PN/NI to 2 that result was not outcome data?	3.1: Is ther biased by	e evidence missing	NA	
	3.3 If N/PN to 3.2: the outcome depen	Could mis d on its tru	ssingness in ue value?	NA	

	3.4 If Y/PY/NI to 2 missingness in the its true value?	3.3: Is it lik outcome d	cely that lepended on	NA	
	Risk of hiss indo	ement		Low	
	4.1 Was the metho outcome inappropr	d of measu riate?	uring the	PN	Quote: "Patients were asked to record any side effects that may be attributed to the oral nutritional supplementation, e.g., diarrhea or flatulence."
	4.2 Could measure ascertainment of th differed between in	ement or ne outcome ntervention	e have 1 groups?	PN	Comment: We answered "probably not" because of the nature of the outcome.
Bias in measurement of the outcome	4.3 Were outcome the intervention re- participants?	assessors a ceived by s	aware of study	Y	Comment: Unblinded trial of nutritional intervention.
	4.4 If Y/PY/NI to a of the outcome hav knowledge of inter	4.3: Could ve been inf	assessment luenced by ceived?	РҮ	Comment: This is a participant- reported outcome.
	4.5 If Y/PY/NI to assessment of the orifluenced by know received?	4.4: Is it lik outcome w wledge of i	cely that as ntervention	РҮ	Comment: Participants knew they were receiving the ONS and probably had been informed that adverse event might occur.
	Risk of bias judge	ement		High	
	5.1 Were the data result analyzed in a specified analysis before unblinded of available for analy	that produc accordance plan that w outcome da	eed this with a pre- ras finalized ta were	NI	
Bias in selection of the reported	5.2 multiple out (e.g. scales, definit within the outcome	come meas tions, time e domain?	surements points)	PN	Comment: We answered "probably no" because of the nature of the outcome.
result	5.3 multiple ana	lyses of the	e data?	PN	Comment: We answered "probably no" because of the nature of the outcome.
	Risk of bias judge	ement		Some concerns	
Overall bias	Risk of bias judge	ement		High	
Outcome	Dry mouth	Study ID	Nayel 1992	Source	Journal article(s) with results of the trial
Domain	Signaling question	n		Response	Description
	1.1 Was the alloca	tion sequer	nce	NI	
	1.2 Was the alloca concealed until par enrolled and assign	tion sequer rticipants w ned to inter	nce vere ventions?	NI	
Bias arising from the randomization process 1.3 Did baseline differences between intervention groups suggest a problem with the randomization process?		petween problem sss?	PN	Comment: Even though many important variables were not reported at baseline, we answered this question as "probably not", because those variables were also not reported in the other timepoints (e.g. body weight was only presented as % change)	
	Risk of bias judge	ement		Some	
Bias due to	2.1.Were participa	nts aware o	of their		Unblinded trial of nutritional
deviations	assigned intervent	on during	the trial?	Y	intervention.

A a a a a a a a a a a	2.2 W		
from intended	2.2. were carers and people delivering		
interventions	the interventions aware of participants'	PY	
	assigned intervention during the trial?		
	2.3 If Y/PY/NI to 2.1 or 2.2. Were there		
	deviations from the intended		
	intervention that areas because of the	PN	None reported.
	intervention that arose because of the		
	experimental context?		
	2.4. If Y/PY to 2.3: Were these		
	deviations from intended intervention	NA	
	balanced between groups?		
	2.5 If N/PN/NI to 2.4: Were these		
	deviations likely to have affected the	NA	
	outcome?		
	2.6 Was an appropriate analysis used to		Apparently, all participants
	2.0 was an appropriate analysis used to	DV	apparently, an participants
	estimate the effect of assignment to	ГІ	
	intervention?		included in the analysis.
	2.7 If N/PN/NI to 2.6: Was there		
	potential for a substantial impact (on the		
	result) of the failure to analyze	NA	
	participants in the group to which they		
	were randomized?		
	Risk of bias judgement	Low	
	Tusk of blus judgement	Low	Quote: "were randomly allocated ()
			to receive either redictherency alone
			to receive either radiotherapy alone
	3.1 Were data for this outcome available		(12 patients) or radiotherapy plus oral
	for all, or nearly all, participants	Y	nutritional oral supplementation (11
	randomized?		patients)"
			Comment: Data for all randomized
D			patients are presented.
Bias due to	3.2 If N/PN/NI to 3.1: Is there evidence		
missing outcome data	that result was not biased by missing	NA	
		INA	
outcome data	outcome data?	INA	
outcome data	outcome data?	INA	
outcome data	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NA	
outcome data	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NA	
outcome data	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that	NA	
outcome data	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on	NA NA NA	
outcome data	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	NA NA NA	
outcome data	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement	NA NA NA Low	
outcome data	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement	NA NA NA Low	Comment: The questionnaire used is
outcome data	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the	NA NA NA Low	Comment: The questionnaire used is not adequately described, and its
outcome data	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate?	NA NA NA Low	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome
outcome data	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate?	NA NA NA Low	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain.
outcome data	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or	NA NA NA Low	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain.
outcome data	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have	NA NA NA Low NI	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain. Comment: Patients filled a questionnaire, which was probably
outcome data	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	NA NA NA Low NI PN	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain. Comment: Patients filled a questionnaire, which was probably standardized
outcome data	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	NA NA NA Low NI PN	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain. Comment: Patients filled a questionnaire, which was probably standardized.
outcome data Bias in	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 4.3 Were outcome assessors aware of the outcome intervention groups?	NA NA NA Low NI PN	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain. Comment: Patients filled a questionnaire, which was probably standardized. Comment: Unblinded trial of
outcome data Bias in measurement	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 4.3 Were outcome assessors aware of the intervention received by study	NA NA NA Low NI PN Y	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain. Comment: Patients filled a questionnaire, which was probably standardized. Comment: Unblinded trial of nutritional intervention.
outcome data Bias in measurement of the outcome	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 4.3 Were outcome assessors aware of the intervention received by study participants?	NA NA NA Low NI PN Y	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain. Comment: Patients filled a questionnaire, which was probably standardized. Comment: Unblinded trial of nutritional intervention.
outcome data Bias in measurement of the outcome	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 4.3 Were outcome assessors aware of the intervention received by study participants? 4.4 If Y/PY/NI to 4.3: Could assessment	NA NA NA Low NI PN Y	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain. Comment: Patients filled a questionnaire, which was probably standardized. Comment: Unblinded trial of nutritional intervention.
outcome data Bias in measurement of the outcome	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 4.3 Were outcome assessors aware of the intervention received by study participants? 4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by	NA NA NA Low NI PN Y PY	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain. Comment: Patients filled a questionnaire, which was probably standardized. Comment: Unblinded trial of nutritional intervention. Comment: subjective measure plus patient expectation of benefit
outcome data Bias in measurement of the outcome	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 4.3 Were outcome assessors aware of the intervention received by study participants? 4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?	NA NA NA Low NI PN Y PY	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain. Comment: Patients filled a questionnaire, which was probably standardized. Comment: Unblinded trial of nutritional intervention. Comment: subjective measure plus patient expectation of benefit.
outcome data Bias in measurement of the outcome	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 4.3 Were outcome assessors aware of the intervention received by study participants? 4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received? 4.5 If Y/PY/NI to 4.4: Is it likely that	NA NA NA Low NI PN Y PY	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain. Comment: Patients filled a questionnaire, which was probably standardized. Comment: Unblinded trial of nutritional intervention. Comment: subjective measure plus patient expectation of benefit.
outcome data Bias in measurement of the outcome	 and reduct was not outset by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 4.3 Were outcome assessors aware of the intervention received by study participants? 4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received? 4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was 	NA NA NA Low NI PN Y PY	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain. Comment: Patients filled a questionnaire, which was probably standardized. Comment: Unblinded trial of nutritional intervention. Comment: subjective measure plus patient expectation of benefit.
outcome data Bias in measurement of the outcome	 and result was not stated by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 4.3 Were outcome assessors aware of the intervention received by study participants? 4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received? 4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention 	NA NA NA Low NI PN Y PY PY	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain. Comment: Patients filled a questionnaire, which was probably standardized. Comment: Unblinded trial of nutritional intervention. Comment: subjective measure plus patient expectation of benefit.
outcome data Bias in measurement of the outcome	 and result was not stated by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 4.3 Were outcome assessors aware of the intervention received by study participants? 4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received? 4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received? 	NA NA NA Low NI PN Y PY PY	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain. Comment: Patients filled a questionnaire, which was probably standardized. Comment: Unblinded trial of nutritional intervention. Comment: subjective measure plus patient expectation of benefit.
outcome data Bias in measurement of the outcome	 and result was not stated by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 4.3 Were outcome assessors aware of the intervention received by study participants? 4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received? 4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received? Risk of bias judgement 	NA NA NA Low NI PN Y PY PY High	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain. Comment: Patients filled a questionnaire, which was probably standardized. Comment: Unblinded trial of nutritional intervention. Comment: subjective measure plus patient expectation of benefit.
outcome data Bias in measurement of the outcome	outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 4.3 Were outcome assessors aware of the intervention received by study participants? 4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received? 4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received? Risk of bias judgement 5.1 Were the data that produced this	NA NA NA Low NI PN Y PY PY High	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain. Comment: Patients filled a questionnaire, which was probably standardized. Comment: Unblinded trial of nutritional intervention. Comment: subjective measure plus patient expectation of benefit.
outcome data Bias in measurement of the outcome Bias in	 autome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value? Risk of bias judgement 4.1 Was the method of measuring the outcome inappropriate? 4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? 4.3 Were outcome assessors aware of the intervention received by study participants? 4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received? 4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received? Risk of bias judgement 5.1 Were the data that produced this result analyzed in accordance with a pre- 	NA NA NA Low NI PN Y PY PY High NI	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain. Comment: Patients filled a questionnaire, which was probably standardized. Comment: Unblinded trial of nutritional intervention. Comment: subjective measure plus patient expectation of benefit.

the reported	before unblinded of	utcome de	to wara		
result	available for analy	sis?			
	5.2 multiple out (e.g. scales, definit within the outcome	come meas tions, time e domain?	surements points)	РҮ	Comment: The outcome was measured weekly for 6 weeks, but the last timepoint in the graph corresponds to the 5th week.
	5.3 multiple ana	lyses of the	e data?	PN	
	Risk of bias judge	ement		High	
Overall bias	Risk of bias judge	ement		High	
Outcome	Interruption of regimenStudy IDNayel 1992			Source	Journal article(s) with results of the trial
Domain	Signaling question	n		Response	Description
	1.1 Was the alloca random?	tion seque	nce	NI	
	1.2 Was the alloca concealed until par enrolled and assign	tion sequer rticipants v ned to inter	nce vere ventions?	NI	
Bias arising from the randomization process	1.3 Did baseline di intervention group with the randomize	ifferences l s suggest a ation proce	petween problem sss?	PN	Comment: Even though many important variables were not reported at baseline, we answered this question as "probably not", because those variables were also not reported in the other timepoints (e.g. body weight was only presented as % change)
	Risk of bias judgement			Some concerns	
	2.1.Were participants aware of their assigned intervention during the trial?			Y	Unblinded trial of nutritional
	2.2.Were carers an the interventions a assigned intervention	d people d ware of pa on during	elivering rticipants' the trial?	РҮ	intervention.
	2.3. If Y/PY/NI to deviations from the intervention that an experimental conte	2.1 or 2.2: e intended rose becaus ext?	Were there se of the	PN	None reported.
Bias due to deviations	2.4. If Y/PY to 2.3 deviations from in balanced between	: Were the tended inte groups?	se ervention	NA	
from intended interventions	2.5 If N/PN/NI to 2 deviations likely to outcome?	2.4: Were f have affe	these cted the	NA	
	2.6 Was an approp estimate the effect intervention?	riate analy of assignn	sis used to nent to	РҮ	Apparently, all participants completed the study and were included in the analysis.
	2.7 If N/PN/NI to 2 potential for a sub- result) of the failur participants in the were randomized?	2.6: Was the stantial important in the stantial important in the standard stand Standard standard stand Standard standard stand Standard standard stand Standard standard stan	here pact (on the ze which they	NA	
	Risk of bias judge	ement		Low	
Bias due to missing outcome data	were randomized? Risk of bias judgement 3.1 Were data for this outcome available for all, or nearly all, participants randomized?			Y	Quote: "were randomly allocated () to receive either radiotherapy alone (12 patients) or radiotherapy plus oral nutritional oral supplementation (11 patients)" Comment: Data for all randomized patients are presented.

	3.2 If N/PN/NI to that result was not outcome data?	3.1: Is there biased by 1	e evidence missing	NA	
	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?				
	3.4 If Y/PY/NI to missingness in the its true value?	3.3: Is it lik outcome d	ely that epended on	NA	
	Risk of bias judge	ement		Low	
	4.1 Was the metho outcome inappropr	d of measu riate?	ring the	PN	Comment: Treatment appeared to have been measured without any specific time cut-off.
	4.2 Could measure ascertainment of the differed between in	ement or ne outcome ntervention	have groups?	PN	Comment: We answered "probably not" because of the nature of the outcome.
Bias in measurement	4.3 Were outcome the intervention re- participants?	assessors a ceived by s	aware of tudy	Y	Comment: Unblinded trial of nutritional intervention.
of the outcome	4.4 If Y/PY/NI to 4 of the outcome hav knowledge of inter	4.3: Could ve been inf	assessment luenced by ceived?	PN	Comment: We answered "probably not" because of the nature of the outcome.
	4.5 If Y/PY/NI to assessment of the of influenced by know received?	4.4: Is it lik outcome wa wledge of i	tely that as ntervention	NA	
	Risk of bias judge	ement		Low	
	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were			NI	
Bias in selection of the reported	5.2 multiple out (e.g. scales, definit within the outcome	come meas tions, time e domain?	points)	PN	Comment: We answered "probably no" because of the nature of the outcome.
result	5.3 multiple ana	lyses of the	e data?	PN	Comment: We answered "probably no" because of the nature of the outcome.
	Risk of bias judge	ement		Some	
				Somo	
Overall bias	Risk of bias judge	ement		concerns	
Outcome	Objective mucosal reaction	Study ID	Nayel 1992	Source	Journal article(s) with results of the trial
Domain	Signaling question	n		Response	Description
	1.1 Was the alloca	tion sequer	nce	NT	
	random?	1		NI	
	1.2 Was the alloca	tion sequer	nce		
Bios orising	concealed until par	rticipants w	vere	NI	
Bias arising from the randomization process	enrolled and assigned to interventions? 1.3 Did baseline differences between intervention groups suggest a problem with the randomization process?			PN	Comment: Even though many important variables were not reported at baseline, we answered this question as "probably not", because those variables were also not reported in the other timepoints (e.g. body weight was only presented as % change)

	Risk of bias judgement	Some concerns	
	2.1.Were participants aware of their assigned intervention during the trial?	Y	
	2.2.Were carers and people delivering the interventions aware of participants' assigned intervention during the trial?	РҮ	Unblinded trial of nutritional intervention.
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?	PN	None reported.
Bias due to deviations	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA	
from intended interventions	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	РҮ	Apparently, all participants completed the study and were included in the analysis.
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Low	
	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	Y	Quote: "were randomly allocated () to receive either radiotherapy alone (12 patients) or radiotherapy plus oral nutritional oral supplementation (11 patients)" Comment: Data for all randomized patients are presented.
Bias due to missing outcome data	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	NA	
	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NA	
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	NA	
	Risk of bias judgement	Low	
	4.1 Was the method of measuring the outcome inappropriate?	NI	Comment: The validity of the scale used to measure the outcome remains uncertain. How patients were assessed is unclear.
	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	NI	Comment: There is no information about how the patients were assessed.
Bias in measurement of the outcome	4.3 Were outcome assessors aware of the intervention received by study participants?	Y	Comment: Unblinded trial of nutritional intervention.
	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?	РҮ	Comment: subjective measure plus assessor expectation of benefit.
	4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received?	РҮ	

	Risk of bias judgement			High	
Diag in	5.1 Were the data t result analyzed in a specified analysis p before unblinded o available for analy	hat produce accordance plan that w outcome da sis?	ced this with a pre- vas finalized ta were	NI	
selection of the reported	5.2 multiple out (e.g. scales, definit within the outcome	come meas ions, time e domain?	surements points)	PN	Comment: We answered "probably no" because of the nature of the outcome.
result	5.3 multiple ana	lyses of th	e data?	PN	Comment: We answered "probably no" because of the nature of the outcome.
	Risk of bias judgement			Some concerns	
Overall bias	Risk of bias judge	ement		High	
				Ŭ	
Outcome	Swallowing difficulty	Study ID	Nayel 1992	Source	Journal article(s) with results of the trial
Domain	Signaling question	n		Response	Description
	1.1 Was the allocation sequence			NI	
	random? 1.2 Was the allocat concealed until par enrolled and assign	tion sequenticipants values to interview the second s	nce vere rventions?	NI	
Bias arising from the randomization process	1.3 Did baseline di intervention group with the randomiza	fferences s suggest a ation proce	between 1 problem 288?	PN	Comment: Even though many important variables were not reported at baseline, we answered this question as "probably not", because those variables were also not reported in the other timepoints (e.g. body weight was only presented as % change)
	Risk of bias judgement			Some	
	2.1.Were participat	nts aware	of their	V	
	assigned interventi	on during	the trial?	I	Unblinded trial of nutritional
	2.2.Were carers an the interventions av assigned interventi	d people d ware of pa on during	elivering rticipants' the trial?	PY	intervention.
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?			PN	None reported.
Bias due to deviations	2.4. If Y/PY to 2.3 deviations from int balanced between	: Were the tended inte groups?	se ervention	NA	
from intended interventions	2.5 If N/PN/NI to 2 deviations likely to outcome?	2.4: Were have affe	these cted the	NA	
	2.6 Was an approp estimate the effect intervention?	riate analy of assignn	rsis used to nent to	РҮ	Apparently, all participants completed the study and were included in the analysis.
	intervention? 2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?			NA	
1	risk of blas judge	ment		LOW	
					Ouote: "were randomly allocated ()
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	3.1 Were data for t for all, or nearly all randomized?	his outcon l, participa	ne available ints	Y	to receive either radiotherapy alone (12 patients) or radiotherapy plus oral nutritional oral supplementation (11 patients)" Comment: Data for all randomized patients are presented.
Bias due to	3.2 If N/PN/NI to 3	1 · Is ther	e evidence		patients are presented.
missing outcome data	that result was not outcome data?	biased by	missing	NA	
	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?			NA	
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?			NA	
	Risk of bias judgement			Low	
	4.1 Was the method of measuring the outcome inappropriate?			NI	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain.
	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?			PN	Comment: Patients filled a questionnaire, which was probably standardized.
Bias in measurement	4.3 Were outcome assessors aware of the intervention received by study participants?			Y	Comment: Unblinded trial of nutritional intervention.
of the outcome	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?			РҮ	Comment: subjective measure plus patient expectation of benefit.
	4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received?			РҮ	
	Risk of bias judge	ement		High	
Bias in 5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were			NI		
selection of the reported result	5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain?			РҮ	Comment: The outcome was measured weekly for 6 weeks, but the last timepoint in the graph corresponds to the 5th week.
	5.3 multiple ana	lyses of th	e data?	PN	
	Risk of bias judge	ement		High	
Overall bias	Risk of bias judgement			High	
Outcome	Changes in taste and appetite loss	Study ID	Nayel 1992	Source	Journal article(s) with results of the trial
Domain	Signaling question	1		Response	Description
Bias arising	1.1 Was the allocat random?	tion seque	nce	NI	
randomization process	1.2 Was the allocation sequence concealed until participants were enrolled and assigned to interventions?			NI	

	1.3 Did baseline differences between intervention groups suggest a problem with the randomization process?	PN	Comment: Even though many important variables were not reported at baseline, we answered this question as "probably not", because those variables were also not reported in the other timepoints (e.g. body weight was only presented as % change)
	Risk of bias judgement	Some concerns	
	2.1.Were participants aware of their	Y	
	2.2. Were carers and people delivering the interventions aware of participants' assigned intervention during the trial?	РҮ	Unblinded trial of nutritional intervention.
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?	PN	None reported.
Bias due to deviations	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA	
from intended interventions	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	РҮ	Apparently, all participants completed the study and were included in the analysis.
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Low	
Dias due 4e	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	Y	Quote: "were randomly allocated () to receive either radiotherapy alone (12 patients) or radiotherapy plus oral nutritional oral supplementation (11 patients)" Comment: Data for all randomized patients are presented.
missing outcome data	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	NA	
	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NA	
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	NA	
	Risk of bias judgement	Low	
	4.1 Was the method of measuring the outcome inappropriate?	NI	Comment: The questionnaire used is not adequately described, and its validity to measure the outcome remains uncertain.
measurement of the outcome	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	PN	Comment: Patients filled a questionnaire, which was probably standardized.
	4.3 Were outcome assessors aware of the intervention received by study participants?	Y	Comment: Unblinded trial of nutritional intervention.

	4.4 If Y/PY/NI to 4 of the outcome have	4.3: Could ve been inf	assessment luenced by	РҮ	Comment: subjective measure plus patient expectation of benefit.
	4.5 If Y/PY/NI to assessment of the of influenced by know received?	4.4: Is it lik outcome waveledge of i	celved? cely that as ntervention	РҮ	
	Risk of bias judge	ement		High	
Bias in	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?			NI	
the reported result	5.2 multiple out (e.g. scales, definit within the outcome	come meas ions, time e domain?	surements points)	РҮ	Comment: The outcome was measured weekly for 6 weeks, but the last timepoint in the graph corresponds to the 5th week.
	5.3 multiple ana	lyses of the	e data?	PN	
	Risk of bias judge	ement		High	
Overall bias	Risk of bias judge	ement		High	
Outcome	Body weight	Study ID	Nayel 1992	Source	Journal article(s) with results of the trial
Domain	Signaling question	n		Response	Description
	1.1 Was the alloca random?	tion sequer	nce	NI	
	1.2 Was the alloca concealed until par enrolled and assign	tion sequer ticipants w ned to inter	nce vere ventions?	NI	
Bias arising from the randomization process	1.3 Did baseline di intervention group with the randomiza	fferences b s suggest a ation proce	petween problem ss?	PN	Comment: Even though many important variables were not reported at baseline, we answered this question as "probably not", because those variables were also not reported in the other timepoints (e.g. body weight was only presented as % change)
	Risk of bias judgement			Some concerns	
	2.1.Were participa assigned intervention	nts aware o on during	of their the trial?	Y	Unblinded trial of nutritional
	2.2.Were carers and people delivering the interventions aware of participants' assigned intervention during the trial?			РҮ	intervention.
Bias due to	2.3. If Y/PY/NI to deviations from the intervention that an experimental conte	2.1 or 2.2: e intended cose becausext?	Were there se of the	PN	None reported.
deviations from intended interventions	2.4. If Y/PY to 2.3 deviations from in balanced between	: Were thea tended inte groups?	se rvention	NA	
	2.5 If N/PN/NI to 2 deviations likely to outcome?	2.4: Were t have affe	these cted the	NA	
	2.6 Was an approp estimate the effect intervention?	riate analy of assignm	sis used to nent to	РҮ	Apparently, all participants completed the study and were included in the analysis.
	2.7 If N/PN/NI to 2 potential for a sub-	2.6: Was th stantial imp	here bact (on the	NA	

	result) of the failure to analyze participants in the group to whi were randomized?	ich they		
	Risk of bias judgement		Low	
	3.1 Were data for this outcome for all, or nearly all, participant randomized?	available ts	Y	Quote: "were randomly allocated () to receive either radiotherapy alone (12 patients) or radiotherapy plus oral nutritional oral supplementation (11 patients)" Comment: Data for all randomized patients are presented.
Bias due to missing outcome data	3.2 If N/PN/NI to 3.1: Is there of that result was not biased by m outcome data?	evidence issing	NA	
	3.3 If N/PN to 3.2: Could missi the outcome depend on its true	ingness in value?	NA	
	3.4 If Y/PY/NI to 3.3: Is it like missingness in the outcome dep its true value?	ly that pended on	NA	
	Risk of bias judgement		Low	
Bias in	4.1 Was the method of measuri outcome inappropriate?	ing the	NI	Quote: "Anthropometric evaluation consisted of weight (kg), ()" "Quote: "Percentage weight loss was derived from the highest previous weight, and percentage weight gain was derived from the lowest weight (at onset of treatment) "
	4.2 Could measurement or ascertainment of the outcome h	ave	PN	Comment: Although not properly described, the measurement of body weight is commonly standardized
measurement of the outcome	4.3 Were outcome assessors aw the intervention received by stu- participants?	vare of idy	Y	Comment: Unblinded trial of nutritional intervention.
	4.4 If Y/PY/NI to 4.3: Could as of the outcome have been influ knowledge of intervention rece	ssessment enced by vived?	PN	Comment: Objective measure.
	4.5 If Y/PY/NI to 4.4: Is it like assessment of the outcome was influenced by knowledge of int received?	ly that servention	NA	
	Risk of bias judgement		Low	
	5.1 Were the data that produced result analyzed in accordance v specified analysis plan that was before unblinded outcome data available for analysis?	d this vith a pre- s finalized were	NI	
Bias in selection of the reported result	5.2 multiple outcome measure (e.g. scales, definitions, time powithin the outcome domain?	rements pints)	PN	
	5.3 multiple analyses of the o	data?	РҮ	Comment: Body weight was presented only as % change from the highest or lowest previous weight. Actual measurements of body weight are not presented in the study.
	Risk of bias judgement			
Overall bias	Risk of bias judgement		High	

Outcome	Quality of life (end of treatment)	Study ID	Ravasco 2005	Source	Journal article(s) with results of the trial; Conference abstract(s) about the trial
Domain	Signaling question	n		Response	Description
Domain	1 1 Was the alloca	tion seque	nce		Quote: "Patients stratified by cancer
Bias arising from the randomization process	random?	cion seque		Y	stage were randomly assigned at
	1.2 Was the alloca concealed until par enrolled and assign	tion seque rticipants v ned to inter	nce vere rventions?	Y	enrollment in permutation blocks of three, using a sequential series of numbered opaque sealed envelopes containing computer-generated random assignments." Quote: "() using a sequential series of numbered opaque sealed envelopes containing computer-generated random assignments." Quote: "A copy of the randomization sequence was kept separately from the study personnel. Randomization envelopes were opened before the first patient appointment by a person blind to the study procedures."
	1.3 Did baseline di intervention group with the randomize	ifferences l s suggest a ation proce	between 1 problem ess?	N	
	Risk of bias judge	ement		Low	
	2.1.Were participa	nts aware	of their	Y	
	assigned interventi	ion during	the trial?		Comment: non-blinded trial of
	the interventions a assigned intervention	ware of pa	rticipants' the trial?	Y	nutritional intervention
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?			N	Comment: None reported.
	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?			NA	
Bias due to deviations	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?			NA	
from intended interventions	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?			Y	Quote: "All analyses were conducted on an intention-to-treat basis, and, therefore, available data from all study patients were used. If any missing data were observed, the missing value(s) would be replaced by the average of the study group, which would have no effect on the estimators."
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?			NA	
	Risk of bias judge	ement		Low	
Bias due to missing outcome data	3.1 Were data for t for all, or nearly al randomized?	this outcon l, participa	ne available ints	Y	Comment: Data was available for all randomized participants.

	$2.2 \pm 0.1 \pm 0.1 \pm 0.1 \pm 0.1 \pm 0.1$		
	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	NA	
	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	NA	
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	NA	
	Risk of bias judgement	Low	
Bias in measurement of the outcome	4.1 Was the method of measuring the outcome inappropriate?	N	Quote: "QOL was assessed (), always using the EORTC Quality of Life Questionnaire version 3.0 (EORTC QLQ-C30). () Original scores were linearly transformed to obtain quantified scores within the range of 0 to 100; in addition, and for better validation in the clinical context, overall scores derived from function scales, symptom scales, and single items were calculated on the basis of the very high statistical significance of the interscale correlations, which were calculated according to EORTC's guidelines."
	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	N	Quote: "Randomly assigned patients had scheduled visits and identical contact time with the research dietician (PR)." Quote: "QOL was assessed at the three time points"
	4.3 Were outcome assessors aware of the intervention received by study participants?	Y	Comment: quality of life is a participant-reported outcome.
	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?	Y	Comment: quality of life is a participant-reported outcome.
	4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received?	РҮ	Comment: The patient may hold a strong belief that the supplement might help, depending on how the supplement was described to him and what was written on the package. Another possible interpretation in the context of this trial, is that the patient may think that he might be receiving less than the group receiving dietary counseling. Even though they had identical time with the dietitian, dietary counselling clearly was more intensive, since it was based on patients personal eating patterns and preferences. This makes it difficult to judge the direction of a possible bias.
	Risk of bias judgement	High	
Bias in selection of the reported result	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?	NI	

	5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain?			NI	
	5.3 multiple ana	lyses of th	e data?	NI	
	Risk of bias judgement			Some concerns	
Overall bias	Risk of bias judge	ement		High	
Outcome	Survival (at the longest follow- up)	Study ID	Ravasco 2005	Source	Journal article(s) with results of the trial; Conference abstract(s) about the trial
Domain	Signaling question	n		Response	Description
	1.1 Was the allocation random?	tion sequer	nce	Y	Quote: "Patients stratified by cancer stage were randomly assigned at
Bias arising from the randomization process	1.2 Was the allocation sequence concealed until participants were enrolled and assigned to interventions?			Y	enrollment in permutation blocks of three, using a sequential series of numbered opaque sealed envelopes containing computer-generated random assignments." Quote: "() using a sequential series of numbered opaque sealed envelopes containing computer-generated random assignments." Quote: "A copy of the randomization sequence was kept separately from the study personnel. Randomization envelopes were opened before the first patient appointment by a person blind to the study procedures."
	1.3 Did baseline di intervention group	ifferences l s suggest a	petween problem	N	
	with the randomiza	ation proce	ess?	-	
	Risk of bias judge	ement	0.1.1	Low	
	2.1.Were participa	nts aware o	of their	Y	
	assigned interventi	on during	the trial?		Comment: non-blinded trial of nutritional intervention
	2.2. were carers an	a people a	envering	v	
	assigned interventi	on during	the trial?	1	
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?			Ν	Comment: None reported.
Bias due to deviations	2.4. If Y/PY to 2.3 deviations from int balanced between	: Were the tended inte groups?	se ervention	NA	
from intended interventions	2.5 If N/PN/NI to 2 deviations likely to outcome?	2.4: Were 1 have affe	these cted the	NA	
	2.6 Was an approp estimate the effect intervention?	riate analy of assignm	rsis used to nent to	NI	
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?			PY	Comment: This judgement was made based on the number of missing outcome data.
Risk of bias judgement				High	

	3.1 Were data for t for all, or nearly al randomized?	his outcon l, participa	ne available ints	PN	Comment: We attempted to clarify information on missing outcomes, but we did not receive any information. We made a judgement.
Bias due to missing	3.2 If N/PN/NI to 2 that result was not outcome data?	3.1: Is ther biased by	e evidence missing	N	Comment: None reported.
outcome data	3.3 If N/PN to 3.2: the outcome depen	Could mis d on its tru	ssingness in te value?	NI	
	3.4 If Y/PY/NI to 3 missingness in the its true value?	3.3: Is it lik outcome d	cely that lepended on	NI	
	Risk of bias judge	ement		High	
	4.1 Was the metho outcome inappropr	d of meası iate?	uring the	PN	Quote: "Some data was collected from patients' records at follow-up appointments every 3–6 months;"
	4.2 Could measure ascertainment of th differed between in	ment or ne outcome nterventior	e have 1 groups?	N	Quote: "()in addition, validated questionnaires to assess symptoms were used at programmed interviews after a median follow-up of 3.8 (range 2.0–6.3) yrs (PR)."
Bias in measurement of the outcome	4.3 Were outcome assessors aware of the intervention received by study participants?			Y	Comment: Non-blinded trial.
	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?			Ν	Comment: The outcome is objective.
	4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received?				
	Risk of bias judge	ement		Low	
Bias in	5.1 Were the data result analyzed in a specified analysis before unblinded of available for analy	that product accordance plan that wo outcome da sis?	e with a pre- ras finalized ta were	NI	
the reported result	5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain?			NI	
	5.3 multiple analyses of the data?			NI	
	Risk of bias judge	ement		Some	
Overall bias	Risk of bias judge	ement		High	
	j			8	
Outcome	Anorexia Grade 1, Anorexia Grade 2, Nausea/vomiting Grade 1, Nausea/vomiting Grade 2, Xerostomia Grade 1, Xerostomia Grade 2, Odynophagia/dys phagia Grade 1,	Study ID	Ravasco 2005	Source	Journal article(s) with results of the trial; Conference abstract(s) about the trial

	Odynophagia/dys phagia Grade 2, Dysgueusia Grade 1, Dysgueusia Grade 2 (end of treatment)		
Domain	Signaling question	Response	Description
	1.1 Was the allocation sequence	V	Quote: "Patients stratified by cancer
	random?	Ŷ	stage were randomly assigned at
Bias arising from the randomization process	1.2 Was the allocation sequence concealed until participants were enrolled and assigned to interventions?	Y	enrollment in permutation blocks of three, using a sequential series of numbered opaque sealed envelopes containing computer-generated random assignments." Quote: "() using a sequential series of numbered opaque sealed envelopes containing computer-generated random assignments." Quote: "A copy of the randomization sequence was kept separately from the study personnel. Randomization envelopes were opened before the first patient appointment by a person blind to the study procedures."
	1.3 Did baseline differences between		
	intervention groups suggest a problem	N	
	with the randomization process?	T	
	All Ware participants aware of their	LOW	
	assigned intervention during the trial?	Y	
	2.2.Were carers and people delivering the interventions aware of participants' assigned intervention during the trial?	Y	Comment: non-blinded trial of nutritional intervention
	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?	N	Comment: None reported.
Bias due to deviations	2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?	NA	
from intended interventions	2.5 If N/PN/NI to 2.4: Were these deviations likely to have affected the outcome?	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	Y	Quote: "All analyses were conducted on an intention-to-treat basis, and, therefore, available data from all study patients were used. If any missing data were observed, the missing value(s) would be replaced by the average of the study group, which would have no effect on the estimators."

Bias due to missing outcome data	 2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized? Risk of bias judgement 3.1 Were data for this outcome available for all, or nearly all, participants randomized? 3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data? 3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value? 3.4 If Y/PY/NI to 3.3: Is it likely that 	NA Low Y NA NA	Comment: Data was available for all randomized participants.
	missingness in the outcome depended on its true value?	NA	
	Risk of bias judgement	Low	
	4.1 Was the method of measuring the outcome inappropriate?	N	Quote: "acute RT-induced morbidity was scored from 0 to 4 in accordance with the European Organization for the Research and Treatment of Cancer/Radiation Therapy Oncology Group (EORTC/RTOG) criteria, in which higher scores indicate increased symptom severity."
	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	N	Quote: "Throughout RT, all medication and concurrent chemotherapy was registered, and acute RT-induced morbidity was scored ()" Comment: It is not fully described, but we judged it unlikely to have differed between groups.
Bias in	4.3 Were outcome assessors aware of the intervention received by study participants?	Y	Comment: Non-blinded trial.
measurement of the outcome	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?	Y	Comment: The outcomes require a subjective judgement.
	4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received?	РҮ	Comment: The patient may hold a strong belief that the supplement might help, depending on how the supplement was described to him and what was written on the package. Another possible interpretation in the context of this trial, is that the patient may think that he might be receiving less than the group receiving dietary counseling. Even though they had identical time with the dietitian, dietary counselling clearly was more intensive, since it was based on patients personal eating patterns and preferences. This makes it difficult to judge the direction of a possible bias.
	Risk of bias judgement	High	
Bias in selection of	5.1 Were the data that produced this result analyzed in accordance with a pre-	NI	

the reported result	specified analysis plan that was finalized before unblinded outcome data were available for analysis?				
	5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain?			NI	
	5.3 multiple ana	lyses of th	e data?	NI	
	Risk of bias judge	ement		Some concerns	
Overall bias	Risk of bias judge	ement	1	High	
Outcome	Permanent xerostomia and/or taste alterations (at the longest follow- up)	Study ID	Ravasco 2005	Source	Journal article(s) with results of the trial; Conference abstract(s) about the trial
Domain	Signaling question	n		Response	Description
	1.1 Was the alloca	tion seque	nce	Y	Quote: "Patients stratified by cancer
	random?				stage were randomly assigned at
Bias arising from the randomization process	Bias arising from the randomization process		Y	enrollment in permutation blocks of three, using a sequential series of numbered opaque sealed envelopes containing computer-generated random assignments." Quote: "() using a sequential series of numbered opaque sealed envelopes containing computer-generated random assignments." Quote: "A copy of the randomization sequence was kept separately from the study personnel. Randomization envelopes were opened before the first patient appointment by a person blind to the study procedures."	
	1.3 Did baseline di	fferences l	between		
	intervention group	s suggest a	problem	IN	
	Disk of bios judge	mont	:88 :	Low	
	2 1 Were participa	nts aware o	of their	LUW	
	assigned interventi	on during	the trial?	Y	
	2.2.Were carers an the interventions a assigned interventi	d people d ware of pa on during	elivering rticipants' the trial?	Y	Comment: non-blinded trial of nutritional intervention
Bias due to deviations	2.3. If Y/PY/NI to deviations from the intervention that an experimental conte	2.1 or 2.2: e intended rose becaus ext?	Were there se of the	Ν	Comment: None reported.
from intended interventions	m intended 2.4. If Y/PY to 2.3: Were these deviations from intended intervention balanced between groups?			NA	
	2.5 If N/PN/NI to 2 deviations likely to outcome?	2.4: Were to have affe	these cted the	NA	
	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?				

	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	РҮ	Comment: This judgement was made based on the number of missing outcome data.
	Risk of bias judgement	High	
	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	PN	Comment: We attempted to clarify information on missing outcomes, but we did not receive any information. We made a judgement.
Bias due to missing	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	N	Comment: None reported.
outcome data	3.3 If N/PN to 3.2: Could missingness in the outcome depend on its true value?	РҮ	Comment: Apparently the reasons were mostly related to mortality.
	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	РҮ	Comment: The participants that stayed in the trial were probably different from those that died.
	Risk of bias judgement	High	
	4.1 Was the method of measuring the outcome inappropriate?	N	Quote: "() in addition, validated questionnaires to assess symptoms were used at programmed interviews after a median follow-up of 3.8 (range 2.0–6.3) yrs (PR)"
Bias in	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	Ν	Quote: "()in addition, validated questionnaires to assess symptoms were used at programmed interviews after a median follow-up of 3.8 (range 2.0–6.3) yrs (PR)."
	4.3 Were outcome assessors aware of the intervention received by study participants?	Y	Comment: Non-blinded trial.
	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?	Y	Comment: The outcomes require a subjective judgement.
measurement of the outcome	4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received?	РҮ	Comment: The patient may hold a strong belief that the supplement might help, depending on how the supplement was described to him and what was written on the package. Another possible interpretation in the context of this trial, is that the patient may think that he might be receiving less than the group receiving dietary counseling. Even though they had identical time with the dietitian, dietary counselling clearly was more intensive, since it was based on patients personal eating patterns and preferences. This makes it difficult to judge the direction of a possible bias.
	Risk of bias judgement	High	
Bias in selection of the reported result	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?	NI	

	 5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain? 5.3 multiple analyses of the data? 			NI	
				NI	Comment: One concern could be raised that xerostomia and taste alterations were evaluated in a composite outcome, instead of as independent outcomes.
	Risk of bias judge	ement		Some concerns	
Overall bias	Risk of bias judge	ement		High	
Outcome	CT dose reduction, RT dose reduction	Study ID	Cereda 2018	Source	Journal article(s) with results of the trial; Trial protocol; Conference abstract(s) about the trial
Domain	Signaling question	n		Response	Description
	1.1 Was the alloca random?	tion sequer	nce	Y	Quote: "Allocation to the two intervention groups was performed
Bias arising from the randomization process	1.2 Was the alloca concealed until par enrolled and assign	tion sequer ticipants w ned to inter	nce vere ventions?	Y	according to a computer-generated random blocks randomization list (varying block sizes)." Quote: "The randomization list was prepared by a local statistician, who was not involved in the selection and enrollment of patients. Concealment was achieved by using sealed envelopes."
Bias due to deviations from intended interventions 2.3. If Y/PY/NI to 2.1 or 2.2: Were duction from the randomization process Bias due to deviations from intended intervention from the randomization process 2.3. If Y/PY/NI to 2.1 or 2.2: Were deviations from the intervention during the to experimental context?	petween problem ess?	N	Comment: no apparent imbalances		
	Risk of bias judge	ement	6.4	Low	
	2.1. Were participa assigned interventi	3 Did baseline differences between itervention groups suggest a problem ith the randomization process? Sisk of bias judgement .1.Were participants aware of their ssigned intervention during the trial?	Y		
	2.2.Were carers an the interventions a assigned intervention	d people d ware of par on during	elivering rticipants' the trial?	Y	Comment: non-blinded trial of nutritional intervention
Bias due to deviations from intended interventions	2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from the intended intervention that arose because of the experimental context?			N	Comment: Artificial enteral nutrition was started in 9% of patients in the intervention group, 9.9% in the comparator group. Reason: treatment- related toxicity and its sequelae (<60% of estimated requirements for two consecutive weeks despite the use of ONS). Oral nutritional supplements were prescribed to 9.9% of patients in the comparator group. Reason: ethical reasons, to improve their protein- calorie intakes (food intake < 60% of estimated requirements for two consecutive weeks)
Bias arising I Transmission I Domain S Domain S Bias arising I from the I randomization I process I Bias due to I deviations I from intended I interventions I I I	2.4. If Y/PY to 2.3 deviations from int balanced between	: Were the tended inte groups?	se ervention	NA	
	2.5 If N/PN/NI to 2 deviations likely to outcome?	2.4: Were to have affe	these cted the	NA	

	2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention?	Y	Quote: "The analysis compared patients, following a modified intention-to-treat principle. Then a series of supportive analyses of the primary endpoint were performed."
	2.7 If N/PN/NI to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyze participants in the group to which they were randomized?	NA	
	Risk of bias judgement	Low	
	3.1 Were data for this outcome available for all, or nearly all, participants randomized?	PN	Comment: 86% available in the intervention group; 85% available in the comparator group. The ratio of participants with missing data to participants with events was 23/7 (3.28) for RT dose reduction; 23/20 (1.15) for CT dose reduction.
Bias due to missing outcome data	3.2 If N/PN/NI to 3.1: Is there evidence that result was not biased by missing outcome data?	РҮ	Quote: "Dropouts were not clinically and statistically different from patients remaining in the study, neither at baseline nor during follow- up (data not shown); thus we considered missingness to be at random."
	3.3 If N/PN to 3.2: Could missingness in	NA	
Bias due to missing outcome data	3.4 If Y/PY/NI to 3.3: Is it likely that missingness in the outcome depended on its true value?	NA	
	Risk of bias judgement	Low	
	4.1 Was the method of measuring the outcome inappropriate?	NI	
	4.2 Could measurement or ascertainment of the outcome have differed between intervention groups?	Ν	Quote: "() tolerance to anti-cancer treatments was continuously monitored." Comment: Assessment opportunities were apparently the same for all participants.
Bias in measurement of the outcome	4.3 Were outcome assessors aware of the intervention received by study participants?	РҮ	Comment: It is unclear who measured this outcome, but the authors reported that outcome assessors of severity of mucositis were blinded and made no comment on this specific outcome.
	4.4 If Y/PY/NI to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received?	Ν	Comment: This is an objective outcome.
	4.5 If Y/PY/NI to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention received?	NA	
	Risk of bias judgement	Low	
Bias in selection of the reported result	5.1 Were the data that produced this result analyzed in accordance with a pre- specified analysis plan that was finalized before unblinded outcome data were available for analysis?	Y	Quote in protocol: "Feasibility of radiotherapy: number of interruptions >5 days; total duration (days); dose reduction"

	5.2 multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain?	PN	Comment: The outcome domain "feasibility of radiotherapy" included other measurements that were not reported, but this result does not seem to have been selected on the basis of a "positive" result. Originally these outcomes were reported as composite outcomes including complete suspension. We contacted authors and they provided outcome data separately for these outcomes.
	5.3 multiple analyses of the data?	NI	
	Risk of bias judgement	Low	
Overall bias	Risk of bias judgement	Low	

Y: yes; PY: probably yes; N: no; PN: probably no; NI: no information; ONS: oral nutritional supplements; RT: radiotherapy; CT: chemo-therapy

Study ID	Sample size	Mortality	Quality of life	Functional status	Treatment tolerance	Body weight	Adverse effects
Comparison one							
Arnold et al. (1989) ⁽⁶⁾	50	А	?	?	?	А	?
Cereda et al. (2018) ⁽⁷⁾	159	А	А	А	А	А	А
Chitapanarux et al. $(2016)^{(8)}$	40	А	А	+	А	А	А
Jiang et al. (2019) ⁽⁹⁾	100	А	А	+	А	А	А
Nayel et al. (1992) ⁽¹⁰⁾	23	?	?	?	А	А	А
Comparison two							
Ding et al. (2018) ⁽¹¹⁾	64	?	А	?	?	А	?
Moriarty et al. (1981) ⁽¹²⁾	97	А	?	?	?	-	?
Comparison three							
Calaguas et al. $(2010)^{(14)}$	56	?	?	?	?	?	?
Harada et al. $(2019)^{(15)}$	50	+	+	+	А	А	+

Table S5. Assessments of missing results in the included studies for the main outcomes in each comparison

Study ID	Sample size	Mortality	Quality of life	Functional status	Treatment tolerance	Body weight	Adverse effects
Ravasco et al. (2005) ⁽¹³⁾	50	А	А	?	?	?	?
Comparison four							
Ravasco et al. (2005) ⁽¹³⁾	50	А	А	?	?	?	?

A : results available; - : result unavailable, (probably) because of the nature of the findings; + : result unavailable, but (probably) not because of the nature of the findings; ? : result unavailable, but unclear if outcome measured

Table S6. Funding and competing interests information in the included studies and assessments of the potential for concern about conflict of interest

Study ID	Funding	Declaration	Contribution	Judgement
Comparison one				
Arnold et al. (1989) ⁽⁶⁾	The nutritional supplement, Sustacal™, was supplied by Mead Johnson. Inc., Evansville, Indiana.	Comment: no information.	N/A	No notable concern about conflict of interest
Cereda et al. (2018) ⁽⁷⁾	Quote: "This work was supported by the Fondazione IRCCS Policlinico San Matteo, a grant from the Italian Ministry of Health (project code RF-2011-02351315), a grant from ESPEN (Research Fellowship 2013), and by Nestlé Health Science (provision of ONS)." Protocol: Akern Srl (among sponsors and collaborators)	 Riccardo Caccialanza: Nutricia S.r.l, Akern S.r.l., Baxter S. p.a, Fresenius Kabi S.p.a, Eli Lilly S.p.a. (Consulting or Advisory Role); Nutricia S.r.l., Nestlè Health Science S.r.l, Baxter S.p.a. (Research Funding); Nutricia S.r.l., Nestlè Health Science S.r.l, Baxter S.p.a, Eli Lilly S.p.A. (Speaker's Honoraria) Emanuele Cereda: Nutricia S.r.l., Akern S.r.l., Wunder Sa.Bi. s.r.l., Fondazione Grigioni per il Morbo di Parkinson (Consulting or Advisory Role); Fondazione Grigioni per il Morbo di Parkin-son, ESPEN (Research Funding); Nutricia S.r.l., Nestlè Health Science S.r.l., Eli Lilly S.p.A. (Speaker's Honoraria) Paolo Pedrazzoli: Baxter S.p.a. (Speaker's Honoraria) Marco Benazzo, Silvia Cappello, Marilisa Caraccia, Sara Colombo, Franco Corbella, Catherine Klersy, Ilaria Imarisio, Teresa Monaco, Annalisa Turri: No relationship to disclose. 	Quote: "The sponsors had no role in the study design and conduction, in the data collection, management, analysis, interpretation, or in the manuscript revision and approval."	Notable concern about conflict of interest

Study ID	Funding	Declaration	Contribution	Judgement
Chitapanarux et al. (2016) ⁽⁸⁾	The immune enhanced nutrition in this study was supported by Thai Otsuka Pharmaceutical Company, Bangkok, Thailand.	The authors declare that they have no competing interests.	N/A	No notable concern about conflict of interest
Jiang et al. (2019) ⁽⁹⁾	Quote: "The authors thank the EnterNutr China for providing the oral nutritional supplements."	Quote: "No potential conflict of interest was reported by the authors."	N/A	No notable concern about conflict of interest
Nayel et al. (1992) ⁽¹⁰⁾	Comment: no information.	Comment: no information.	N/A	No notable concern about conflict of interest
Comparison two				
Ding et al. (2018) ⁽¹¹⁾	Comment: no information.	Comment: no information.	N/A	No notable concern about conflict of interest
Moriarty et al. (1981) ⁽¹²⁾	Saint Luke's Cancer Research Fund and Mead Johnson	Comment: no information.	N/A	No notable concern about conflict of interest
Comparison three				
Calaguas et al. (2010) ⁽¹⁴⁾	Comment: no information.	Comment: no information.	N/A	No notable concern about conflict of interest

Study ID	Funding	Declaration	Contribution	Judgement
Harada et al. (2019) ⁽¹⁵⁾	Quote: "This study was supported in part by a Grant-in-Aid from the Japanese Ministry of Education, Science, and Culture (grant no. 15K11292). This study was also supported by EA Pharma Co., Ltd., Tokyo, Japan."	Quote: "The authors declare that they have no competing interests."	N/A	No notable concern about conflict of interest
Ravasco et al. (2005) ⁽¹³⁾	Contract grant sponsor: Núcleo Regional do Sul da Liga Portuguesa contra o Cancro; Terry Fox Foundation	Quote: "No significant financial relationships to disclose."	N/A	No notable concern about conflict of interest
Comparison four				
Ravasco et al. (2005) ⁽¹³⁾	Contract grant sponsor: Núcleo Regional do Sul da Liga Portuguesa contra o Cancro; Terry Fox Foundation	Quote: "No significant financial relationships to disclose."	N/A	No notable concern about conflict of interest

N/A: not applicable

Outcome	Number of participants (studies)	RR (95% CI)	Heterogeneity*	Risk of bias
Comparison one				
Dry mouth	123 (2)	1.00 (0.48 to 2.10)	$I^2 = 0\%, \tau^2 = 0, P = 0.52$	High
Mucositis	222 (3)	0.90 (0.58 to 1.39)	$I^2 = 37\%, \tau^2 = 0.01, P = 0.21$	High
Mucositis (grades 3-4)	322 (4)	0.72 (0.44 to 1.19)	$I^2 = 0\%, \tau^2 = 0, P = 0.53$	High - Some concerns
Mucositis (grades 3-4)	100 (1)	0.77 (0.37 to 1.59)	N/A	Some concerns
Nausea	100 (1)	0.76 (0.42 to 1.40)	N/A	High
Radiation dermatitis	140 (2)	1.04 (0.50 to 2.17)	$I^2 = 0\%, \tau^2 = 0, P = 0.45$	High
Swallowing difficulty	23 (1)	0.79 (0.53 to 1.18)	N/A	High
Taste and appetite changes	23 (1)	0.99 (0.77 to 1.28)	N/A	High
Comparison three				
Anorexia (grade 1)	50 (1)	1.00 (0.48 to 2.09)	N/A	High
Anorexia (grade 2)	50 (1)	0.71 (0.26 to 1.95)	N/A	High
Dysgeusia (grade 1)	50 (1)	0.91 (0.47 to 1.75)	N/A	High
Dysgeusia (grade 2)	50 (1)	0.92 (0.50 to 1.67)	N/A	High
Mucositis (grades 1-2)	50 (1)	2.44 (1.42 to 4.20)	N/A	High
Mucositis (grades 3-4)	50 (1)	0.19 (0.06 to 0.56)	N/A	High
Nausea/vomitin g (grade 1)	50 (1)	1.00 (0.22 to 4.49)	N/A	High
Nausea/vomitin g (grade 2)	50 (1)	1.00 (0.15 to 6.55)	N/A	High
Odynophagia/ dysphagia (grade 1)	50 (1)	1.00 (0.56 to 1.78)	N/A	High

Table S7. Summary of non-hematological toxicity outcomes for each comparison

Outcome	Number of participants (studies)	RR (95% CI)	Heterogeneity*	Risk of bias
Odynophagia/ dysphagia (grade 2)	50 (1)	0.83 (0.44 to 1.56)	N/A	High
Permanent xerostomia and/or taste alterations	30 (1)	0.92 (0.60 to 1.41)	N/A	High
Xerostomia (grade 1)	50 (1)	1.00 (0.51 to 1.97)	N/A	High
Xerostomia (grade 2)	50 (1)	0.86 (0.34 to 2.19)	N/A	High
Comparison four				
Anorexia (grade 1)	50 (1)	0.90 (0.44 to 1.83)	N/A	High
Anorexia (grade 2)	50 (1)	2.50 (0.53 to 11.70)	N/A	High
Dysgeusia (grade 1)	50 (1)	1.00 (0.51 to 1.97)	N/A	High
Dysgeusia (grade 2)	50 (1)	1.57 (0.73 to 3.39)	N/A	High
Nausea/vomitin g (grade 1)	50 (1)	0.75 (0.19 to 3.01)	N/A	High
Nausea/vomitin g (grade 2)	50 (1)	2.00 (0.19 to 20.67)	N/A	High
Odynophagia/ dysphagia (grade 1)	50 (1)	0.86 (0.50 to 1.46)	N/A	High
Odynophagia/ dysphagia (grade 2)	50 (1)	1.25 (0.59 to 2.64)	N/A	High
Permanent xerostomia and/or taste alterations	30 (1)	1.34 (0.79 to 2.27)	N/A	High
Xerostomia (grade 1)	50 (1)	0.83 (0.44 to 1.56)	N/A	High
Xerostomia (grade 2)	50 (1)	2.00 (0.56 to 7.12)	N/A	High

Outcome	Number of participants	RR (95% CI)	Heterogeneity*	Risk of bias
	(studies)			

RR: risk ratio; CI: confidence interval; N/A: not applicable; * P value for Cochran's Q test

Quality of life domain	Number of participants (studies)	SMD (95% CI)	Heterogeneity*	Minimal important difference (16)	Risk of bias
Comparison one					
Appetite loss †					
Cereda et al. (2018) ⁽⁷⁾	136 (1)	-0.1 (-0.4 to 0.2)	N/A	N/A	High
Chitapanarux et al. (2016) ⁽⁸⁾	40 (1)	-1.3 (-1.9 to -0.6)	N/A	N/A	High
Cognitive functioning ‡				N/A	High
Cereda et al. (2018) ⁽⁷⁾	136 (1)	0.1 (-0.3 to 0.4)	N/A	N/A	High
Chitapanarux et al. (2016) ⁽⁸⁾	40 (1)	1.7 (0.9 to 2.4)	N/A	N/A	High
Constipation †	136(1)	0.1 (-0.2 to 0.5)	N/A	N/A	High
Diarrhoea †					
Cereda et al. (2018) ⁽⁷⁾	136 (1)	0.1 (-0.2 to 0.4)	N/A	N/A	High
Chitapanarux et al. (2016) ⁽⁸⁾	40 (1)	-1.0 (-1.6 to -0.3)	N/A	N/A	High
Dyspnoea †					
Cereda et al. (2018) ⁽⁷⁾	136 (1)	0.2 (-0.2 to 0.5)	N/A	N/A	High
Chitapanarux et al. (2016) ⁽⁸⁾	40 (1)	-1.0 (-1.6 to -0.3)	N/A	N/A	High
Emotional functioning ‡	176 (2)	-0.1 (-1.9 to 1.8)	$I^2 = 0\%, \tau^2 = 0, P = 0.35$	N/A	High
Fatigue †					
Cereda et al. (2018) ⁽⁷⁾	136 (1)	2.4 (-7.0 to 11.8)	N/A	12 ¶	High
Chitapanarux et al. (2016) ⁽⁸⁾	40 (1)	-5.0 (-7.1 to -2.9)	N/A	12 ¶	High
Financial †	176 (2)	0.1 (-1.6 to 1.9)	$I^2 = 0\%, \tau^2 = 0, P = 0.36$	N/A	High

Table S8. Summary of quality of life domains scores for each comparison

Quality of life domain	Number of participants (studies)	SMD (95% CI)	Heterogeneity*	Minimal important difference (16)	Risk of bias
Insomnia †					
Cereda et al. (2018) ⁽⁷⁾	136 (1)	0.3 (0.0 to 0.6)	N/A	N/A	High
Chitapanarux et al. (2016) ⁽⁸⁾	40 (1)	1.4 (0.7 to 2.1)	N/A	N/A	High
Nausea †					
Cereda et al. (2018) ⁽⁷⁾	136 (1)	0.1 (-0.3 to 0.4)	N/A	N/A	High
Chitapanarux et al. (2016) ⁽⁸⁾	40 (1)	0.9 (0.2 to 1.5)	N/A	N/A	High
Pain †					
Cereda et al. (2018) ⁽⁷⁾	136 (1)	0.0 (-0.4 to 0.3)	N/A	N/A	High
Chitapanarux et al. (2016) ⁽⁸⁾	40 (1)	-1.0 (-1.7 to -0.4)	N/A	N/A	High
Physical functioning ‡					
Cereda et al. (2018) ⁽⁷⁾	136 (1)	-4.0 (-12.8 to 4.8)	N/A	-7.3 ¶	High
Chitapanarux et al. (2016) ⁽⁸⁾	40 (1)	4.0 (1.3 to 6.7)	N/A	-7.3 ¶	High
Role functioning ‡					
Cereda et al. (2018) ⁽⁷⁾	136 (1)	0.0 (-0.3 to 0.3)	N/A	N/A	High
Chitapanarux et al. (2016) ⁽⁸⁾	40 (1)	0.7 (0.1 to 1.4)	N/A	N/A	High
Social functioning ‡	176 (2)	-8.6 (-22.5 to 5.2)	$I^2 = 0\%, \tau^2 = 0, P = 0.32$	6.1 #; -7.3 ¶	High
Comparison two					
Appetite loss †	42 (1)	0.1 (-0.5 to 0.7)	N/A	N/A	High
Constipation †	42 (1)	0.1 (-0.5 to 0.7)	N/A	N/A	High
Diarrhoea †	42 (1)	-0.3 (-0.9 to 0.3)	N/A	N/A	High

Quality of life domain	Number of participants (studies)	SMD (95% CI)	Heterogeneity*	Minimal important difference (16)	Risk of bias
Nausea †	42 (1)	1.2 (0.5 to 1.9)	N/A	N/A	High
Pain †	42 (1)	-1.0 (-1.7 to -0.4)	N/A	N/A	High
Comparison three					
Appetite loss †	50 (1)	59 / 65	N/A	N/A	High
Cognitive functioning ‡	50 (1)	51 / 20	N/A	N/A	High
Constipation †	50 (1)	9 / 8	N/A	N/A	High
Diarrhoea †	50 (1)	6 / 7	N/A	N/A	High
Dyspnoea †	50 (1)	40 / 38	N/A	N/A	High
Emotional functioning ‡	50 (1)	66 / 28	N/A	N/A	High
Fatigue †	50 (1)	75 / 78	N/A	N/A	High
Financial †	50 (1)	37 / 40	N/A	N/A	High
Insomnia †	50 (1)	55 / 60	N/A	N/A	High
Nausea †	50 (1)	71 / 72	N/A	N/A	High
Pain †	50 (1)	74 / 78	N/A	N/A	High
Physical functioning ‡	50 (1)	69 / 21	N/A	N/A	High
Role functioning ‡	50 (1)	68 / 20	N/A	N/A	High
Social functioning ‡	50 (1)	66 / 61	N/A	N/A	High
Comparison four					
Appetite loss †	50 (1)	59 / 68	N/A	N/A	High
Cognitive functioning ‡	50 (1)	51 / 58	N/A	N/A	High
Constipation †	50 (1)	9 / 10	N/A	N/A	High
Diarrhoea †	50 (1)	6 / 7	N/A	N/A	High
Dyspnoea †	50 (1)	40 / 39	N/A	N/A	High

Quality of life domain	Number of participants (studies)	SMD (95% CI)	Heterogeneity*	Minimal important difference (16)	Risk of bias
Emotional functioning ‡	50 (1)	66 / 79	N/A	N/A	High
Fatigue †	50 (1)	75 / 55	N/A	N/A	High
Financial †	50 (1)	37 / 38	N/A	N/A	High
Insomnia †	50 (1)	55 / 55	N/A	N/A	High
Nausea †	50 (1)	71 / 50	N/A	N/A	High
Pain †	50 (1)	74 / 63	N/A	N/A	High
Physical functioning ‡	50 (1)	69 / 74	N/A	N/A	High
Role functioning ‡	50 (1)	68 / 78	N/A	N/A	High
Social functioning ‡	50 (1)	66 / 82	N/A	N/A	High

SMD: Standardized mean difference; CI: Confidence interval; N/A: Not applicable

* P value for Cochran's Q test;

† Higher score indicates increased symptoms or worse impairment;

‡ Higher score indicates better functioning;

§ Mean difference;

|| Median score in oral nutritional supplements group / comparator group; ¶ Minimal important difference for deterioration;

Minimal important difference for improvement

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