

APPENDIX BIJ RICHTLIJN

‘Stotteren bij kinderen, adolescenten en volwassenen’ (2020)

INITIATIEF

Nederlandse Vereniging voor Stottertherapie (NVST)

Nederlandse Vereniging voor Logopedie en Foniatrie (NVLF)

Demosthenes

MANDATERENDE VERENIGING

Nederlandse Vereniging voor Logopedie en Foniatrie (NVLF)

FINANCIERING

Nederlandse Vereniging voor Logopedie en Foniatrie (NVLF)

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Appendix 1 Overzicht van zoekacties voor stotteren: *denovo*-ontwikkeling (2014) en revisie (2020)

Op pagina 3-6 zijn de zoekstrategieën en zoekresultaten vermeld voor de *denovo*-ontwikkeling van de Richtlijn Stotteren. Vanaf pagina 6 zijn zoekstrategieën-resultaten vermeld voor de revisie van de richtlijn. De zoekstrategie voor de revisie is in twee tranches uitgevoerd: 1) een wat gebruikte bronnen en zoektermen betreft uitgebreide search naar richtlijnen en systematische reviews/meta-analysen, 2) een specifieke search naar primaire studies in Medline/PubMed.

Naam file	Aantal
med 20120730 speech and language therapy guidelines na 1995	13*
med 20120731 aanvulling speech and language therapy guidelines na 1995	13*
psy 20120731 speech and language therapy guidelines na 1995	33*
cl systrev 20120808 speech and language systrev	13
med 20120730 speech and language therapy systrev na 1995	111
psy 20120808 speech and language developmental systrev na 1995	29
emb 20120808 speech and language therapie guidelines vanaf 1995	64
emb 20120808 speech and language therapie systrev vanaf 1995	11
cin 20120809 speech guidelines	10*
cin 20120809 speech systematic reviews	37
Update van 12 feb 2013	
med 20130212 stotteren systrev na 1995	2
med 20130212 stotteren rct na 1995	99
psy 20130212 stotteren systrev trials na 1995	107
emb 20130212 P stotteren trials systrev	94
cin 20130212 P stotteren systrev	6
cin 20130212 P stotteren trials	10

* Deze waren onvoldoende bruikbaar voor deze richtlijn.

Zoekactie van 20120730 Database: Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) <1946 to Present> Search Strategy:	Zoekactie van 20130212 Database: Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) <1946 to Present> Search Strategy:
1. "stotteren richtlijnen".ti. (0) 2. exp "rehabilitation of speech and language disorders"/ (7997) 3. guideline/ or practice guideline/ (22758) 4. (speech adj therap*).ti. (549) 5. Speech Therapy/ (4799) 6. Language Therapy/ (1105) 7. 4 or 5 or 6 (5602) 8. guidelin*.ti. (42983) 9. 3 or 8 (56465) 10. 7 and 9 (22) 11. 10 (22) 12. limit 11 to yr="1995 -Current" (14) 13. 2 and 9 (22) 14. 13 (22) 15. limit 14 to yr="1995 -Current" (13) 16. exp Stuttering/ (2891) 17. stutter*.tw. (3251) 18. stammer*.tw. (265) 19. fluency disorders.mp. (41) 20. dysfluen*.tw. (213) 21. non-fluen*.tw. (285) 22. (language adj3 therap*).tw. (1201) 23. (speech adj therap*).tw. (1926) 24. 2 or 5 or 6 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 (13404) 25. 9 and 24 (39) 26. 25 not 10 (17) 27. 26 (17) 28. limit 27 to yr="1995 -Current" (14) 29. from 15 keep 1-13 (13) 30. from 28 keep 1-14 (14) 31. (dutch or english or french or german).la. (18765055) 32. 24 and 31 (12119) 33. 32 (12119) 34. limit 33 to yr="1995 -Current" (6136) 35. "med091027 CBOfiltersysrev&metaMedlineSTART".ti. (0) 36. meta analysis.pt.(35060) 37. (meta-anal\$ or metaanal\$).af.(62641) 38. (quantitativ\$ adj10 (review\$ or overview\$)).tw. (3692) 39. (systematic\$ adj10 (review\$ or overview\$)).tw. (43338)	1. "ontwikkelings stotteren opbouw zoekactie".ti. (0) 2. (speech adj therap*).ti. (561) 3. Speech Therapy/ (4871) 4. Language Therapy/ (1134) 5. exp Stuttering/ (2918) 6. stutter*.tw. (3282) 7. stammer*.tw. (267) 8. fluency disorders.mp. (41) 9. dysfluen*.tw. (214) 10. non-fluen*.tw. (290) 11. (language adj3 therap*).tw. (1257) 12. (speech adj therap*).tw. (1985) 13. or/2-12 (11147) 14. "P voor stotteren".ti. (0) 15. guidelin*.ti. (44111) 16. guideline/ or practice guideline/ (23179) 17. (dutch or english or french or german).la. (18999648) 18. 13 and (15 or 16) and 17 (38) 19. limit 18 to yr="1995 -Current" (28) 20. "med091027CBOfiltersysrev&metaMedlineSTART".ti. (0) 21. meta analysis.pt.(36967) 22. (meta-anal\$ or metaanal\$).af.(66218) 23. (quantitativ\$ adj10 (review\$ or overview\$)).tw. (3867) 24. (systematic\$ adj10 (review\$ or overview\$)).tw. (47091) 25. (methodologic\$ adj10 (review\$ or overview\$)).tw. (5405) 26. medline.tw. and review.pt. (34357) 27. (pooled adj3 analy*).tw. (6385) 28. or/21-27 (124498) 29. "med091027 CBOfiltersysrev& meta Medline EINDE".ti. (0) 30. 13 and 17 and 28 (151) 31. limit 30 to yr="1995 -Current" (143) 32. developmental.ti. (40859) 33. developmental.tw. (166702) 34. Developmental Disabilities/ (13319) 35. speech disorders/ or stuttering/ (12206) 36. 35 and (33 or 34) (660) 37. (stutter* or fluency* or stammer* or clutter*) adj3 developmental.tw. (159) 38. (dysfluen* adj3 developmental).tw. (6) 39. (child* adj2 stutter*).tw. (435) 40. (d?sfluen* adj3 developmental).tw. (13) 41. (early adj stutter*).tw. (47) 42. or/36-41 (1091) 43. 13 and (33 or 34) (604) 44. 42 or 43 (1408)

40.	(methodologic\$ adj10 (review\$ or overview\$)).tw. (5233)	45.	(child??? or childhood or infant* or p?ediatr* or perinat* or neonat* or newborn* or infan* or boy? or girl? or kid? or schoolage* or juvenil* or adolescen* or toddler?).tw. (1558274)
41.	medline.tw. and review.pt. (33113)	46.	expChild/(1456397)
42.	(pooled adj3 analy*).tw. (6029)	47.	exp infant/ (886722)
43.	or/36-42 (117710)	48.	"Adolescent"/ (1501278)
44.	"med091027 CBOfiltersysrev& meta Medline EINDE".ti. (0)	49.	45 or 46 or 47 or 48 (3084391)
45.	34 and 43 (142)	50.	"filter child cbo medline".tw. (0)
46.	(language adj thera*).tw. (975)	51.	44 and 49 (1287)
47.	(speech adj therap*).tw. (1926)	52.	51 and 17 (1192)
48.	4 or 5 or 6 or 16 or 17 or 18 or 19 or 20 or 21 or 46 or 47 (10784)	53.	limit52toyr="1980-Current"(1050)
49.	31 and 48 (9846)	54.	"Pvoorstotterenbijkinderen".ti. (0)
50.	49 (9846)	55.	language therapy/ or speech therapy/ (5562)
51.	limit 50 to yr="1995 -Current" (4941)	56.	(th or rh).fs. (1471365)
52.	43 and 51 (115)	57.	(intervent* or therap*).ti. (593790)
		58.	treat*.ti. (960849)
		59.	or/55-58 (2561520)
		60.	53 and 59 (442)
		61.	"med101005 Cochrane Highly Sensitive Search Strategy for Randomized Trials in Medline START".ti. (0)
		62.	randomized controlled trial.pt. (339011)
		63.	controlled clinical trial.pt.(85097)
		64.	(randomized or randomised).ab.(306310)
		65.	placebo.ab. (140242)
		66.	drug therapy.fs. (1573096)
		67.	randomly.ab. (187872)
		68.	trial.ab. (264547)
		69.	groups.ab. (1216413)
		70.	or/62-69 (3045624)
		71.	70 not (exp animals/ not humans/) (2604016)
		72.	"med101005 Cochrane Highly Sensitive Search Strategy for Randomized Trials in Medline EINDE".ti. (0)
		73.	60 and 71 (99)
		74.	from 19 keep 1-28 (28)
		75.	from 31 keep 1-140 (140)
		76.	from 60 keep 1-3 (3)
		77.	from 73 keep 1-96 (96)
		78.	"bothe\$.fc_auts. and "2006".fc_pubyr. and "321".fc_pg. (1)
		79.	exp *Stuttering/(2646)
		80.	stutter*.ti. (2694)
		81.	79 or 78 or 7 or 8 or 9 or 10 (3204)
		82.	2 or 3 or 4 or exp Stuttering/th or 11 or 12 (7942)
		83.	81 and 82 and 17 (914)
		84.	83 and (15 or 16) (3)
		85.	(81 or 82) and 17 (9301)
		86.	85 (9301)
		87.	limit 86 to yr="1995 -Current" (4839)
		88.	87 and (15 or 16) (26)
		89.	87 and 28 (134)
		90.	5 or 6 or 7 or 8 or 9 or 10 (4286)

	91. 89 and 90 (21) med 20130212 stotteren systrev na 1995 92. 87 and 71 and 90 (387) 93. "med091027 CBOfilterrct Medline START".ti.(0) 94. randomized-controlled-trial.pt. (339011) 95. controlled-clinical-trial.pt. (85097) 96. randomized controlled trial/(339011) 97. randomi?ed controlled trial?.tw. (64762) 98. random-allocation.af. (77042) 99. double-blind-method.af. (117486) 100.single-blind-method.af. (16981) 101.(random adj8 (selection? or sample?)).tw. (30915) 102.random\$.tw. (625670) 103.or/94-102 (846073) 104."med091027 CBO filter rct Medline EINDE".ti. (0) 105.controlled clinical trial/ or randomized controlled trial/ (419357) 106.from 91 keep 1-21 (21) 107.Clinical Trials as Topic/ (162088) 108.103 or 105 or 107 (958898) 109.87 and 90 and 108 (101) med 20130212 stotteren rct na 1995
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Stotteren revisie richtlijn

- I. Gezocht is naar richtlijnen en systematic reviews vanaf 2014-medio augustus 2019, met als bronnen: medline, embase cochrane cinahl, psycinfo.

De P is waar mogelijk conform de zoekstrategie in de richtlijn van 2014.

Overzicht resultaten

Naam file	Aantal	Preselectie*
coc SR 20190816 stotteren focus	21	5
med20190818 stotteren guidelines focus abstract	5	1
med20190818 stotteren SR focus abstract	107	4
emb20190818 stotteren focus guidelines	43	4
emb20190818 stotteren focus SR	89	17
psy20190818 stotteren guidelines	3	1
psy20190818 stotteren SR	49	13
cin20190816 guidelines	54	3
cin20190816 SR	110	15
<i>totaal</i>	481	63

* doorgehaald in de documenten (doc1...doc9) zijn referenties over een ander onderwerp, betreffen geen klinische richtlijn of een systematische review, of zijn in duplo.

Zoekstrategie per database	
Database: Ovid MEDLINE(R) ALL <1946 to August 14, 2019> Search Strategy:	Database: Embase <1974 to 2019 August 14> Search Strategy:
1. "revisie richtlijn stotteren".ti. (0) 2. "rehabilitation of speech and language disorders".tw. (2) 3. "rehabilitation of speech and language disorders".kf. (12) 4. exp "rehabilitation of speech and language disorders"/ or language therapy/ or speech therapy/ (10336) 5. (language adj3 ther*).tw. (2098) 6. (speech adj3 ther*).tw. (5102) 7. (language adj3 ther*).kf. (153) 8. (speech adj3 ther*).kf. (743) 9. Stuttering/ (3859) 10. (stutter* or stammer*).tw. (4645) 11. (stutter* or stammer*).kf. (573) 12. ((fluency adj disorder?) or dysfluen* or non-fluen*).tw. (959) 13. ((fluency adj disorder?) or dysfluen* or non-fluen*).kf. (68) 14. or/2-13 (18942) 15. (dutch or english or german or french).la. (26954008) 16. 4 and 15(17449) 17. limit 16 to yr="2014 -Current" (3819)= P na 2014 18. guidelin*.ti. (72212) 19. guideline/ or practice guideline/ (32353) 20. 18 or 19(91052) 21. 17 and 20(20) 22. "filter systematic reviews".ti. (0) 23. meta analysis.pt. (103870) 24. (meta-anal\$ or metaanal\$).tw,kf. (154699) 25. (quantitativ\$ adj10 (review\$ or overview\$)).tw. (8545) 26. (systematic\$ adj10 (review\$ or overview\$)).tw. (166020) 27. (methodologic\$ adj10 (review\$ or overview\$)).tw. (10950) 28. (quantitativ\$ adj10 (review\$ or overview\$)).kf. (60) 29. (systematic\$ adj10 (review\$ or overview\$)).kf. (15636) 30. (methodologic\$ adj10 (review\$ or overview\$)).kf. (65) 31. medline.tw. and review.pt. (75886) 32. (pooled adj3 analy*).tw. (17669) 33. (pooled adj3 analy*).kf. (216) 34. "cochrane\$".fc_jour.(14306) 35. or/23-34 (318975) 36. (17 and 35) not 20 (201) 37. exp *"rehabilitation of speech and language disorders"/ or *language therapy/ or *speech therapy/ (6681) 38. (language adj3 ther*).ti. (474)	1. "revisie richtlijn stotteren".ti. (0) 2. "rehabilitation of speech and language disorders".tw. (2) 3. "rehabilitation of speech and language disorders".kw. (22) 4. exp "rehabilitation of speech and language disorders"/ or language therapy/ or speech therapy/ (16999) 5. (language adj3 ther*).tw. (3569) 6. speech adj3 ther*).tw. (8307) 7. (language adj3 ther*).kw. (304) 8. (speech adj3 ther*).kw. (782) 9. Stuttering/ (4194) 10. (stutter* or stammer*).tw. (4681) 11. (stutter* or stammer*).kw. (1461) 12. ((fluency adj disorder?) or dysfluen* or non-fluen*).tw. (1680) 13. ((fluency adj disorder?) or dysfluen* or non-fluen*).kw. (211) 14. or/2-13 (26875) 15. (dutch or english or german or french).la. (29718890) 16. 14 and 15(25275) 17. limit 16 to yr="2014 -Current" (7957) 18. guidelin*.ti. (96745) 19. guideline/ or practice guideline/ (388995) 20. 18 or 19(418024) 21. 17 and 20(242) 22. exp *"rehabilitation of speech and language disorders"/ or *language therapy/ or *speech therapy/ (6476) 23. (language adj3 ther*).ti. (636) 24. (speech adj3 ther*).ti. (1305) 25. *Stuttering/ (3288) 26. (stutter* or stammer*).ti. (3364) 27. ((fluency adj disorder?) or dysfluen* or non-fluen*).ti. (316) 28. 3 or 7 or 8 or 11 or 13 or 22 or 23 or 24 or 25 or 26 or 27 (11097) 29. 15 and 28(10201) 30. 29 (10201) 31. limit 30 to yr="2014 -Current" (2305) 32. 20 and 31 (48)= richtlijnen 33. "filter systematic reviews & meta-analyses Embase ".ti. (0) 34. meta analysis/ (169286) 35. "systematic review"/ (215539) 36. (meta-analy\$ or metaanaly\$).tw. (203102) 37. (meta-analy\$ or metaanaly\$).kw. (48828)

39. (speech adj3 ther*) .ti. (1141)	38. (systematic\$ adj4 (review\$ or overview\$)).tw. (205424)
40. *Stuttering/ (3570)	39. (systematic\$ adj4 (review\$ or overview\$)).kw. (25258)
41. (stutter* or stammer*) .ti. (3665)	40. (quantitativ\$ adj5 (review? or overview?)).tw,kw. (4968)
42. ((fluency adj disorder?) or dysfluen* or non-fluen*) .ti. (209)	41. (methodologic adj5 (overview? or review?)).tw,kw. (365)
43. 2 or 3 or 7or 8 or 11 or 13 or 37 or 38 or 39or 40or 41or 42(10997)=P focus	42. (review\$ adj3 (database? or medline or embase or cinahl)).tw,kw. (25783)
44. 43 and 35 and 17 (107)= SR	43. (pooled adj3 analy\$).tw,kw. (27487)
45. 21 and 43 (5)= guidelines	44. (extensive adj3 review\$ adj3 literature).tw,kw. (3507)
	45. (meta or synthesisor (literature adj8 database?) or extraction).tw,kw. (1378743)
	46. review.pt. (2479147)
	47. 45 and 46(146174)
	48. or/34-44,47 (513088)
	49. 31 and 48 (117)= SR

Psyinfo Database: PsycINFO <1806 to August Week 2 2019> Search Strategy:		Cochrane Search Name: HdB stotterenrevisie LastSaved: 16/08/2019 10:27:19 Comment: P focus stotteren20190816	
1. "revisie richtlijn stotteren". ti. (0)	2. "rehabilitation of speech and language disorders".tw. (5)	ID	Search
3. "rehabilitation of speech and language disorders".id. (5)	4. exp "rehabilitation of speech and language disorders"/ or language therapy/ or speech therapy/ (4565)	#1	MeSHdescriptor:[Rehabilitation of Speech and Language Disorders] explode all trees
5. (language adj3 ther*) .tw. (2814)	6. (speech adj3 ther*) .tw. (4312)	#2	(language near ther*) :ti
7. (language adj3 ther*) .id.(1013)	8. (speech adj3 ther*) .id.(1764)	#3	(speech near ther*) :ti
9. Stuttering/ (4199)	10. (stutter* or stammer*) .tw. (6013)	#4	MeSHdescriptor: [Stuttering] explode all trees
11. (stutter* or stammer*) .id.(4865)	12. ((fluency adj disorder?) or dysfluen* or non-fluen*) .tw. (1245)	#5	(stutter* or stammer*) :ti
13. (fluency adj disorder?) or dysfluen* or non-fluen*) .id. (344)	14. or/2-13 (13988)	#6	((fluencydisorder*) or dysfluen*or non-fluen*) :ti
15. (dutch or english or german or french).la. (4452243)= talen	16. 14 and 15(13178)	#7	#1 or #2 or #3 or #4 or #5 or #6
17. limit 16 to yr="2014 -Current" (2199)	18. guidelin*.ti. (7334)		
19. exp "*"rehabilitation of speech and language disorders"/ or *language therapy/ or *speech therapy/ (3967)	20. (language adj3 ther*) .ti. (505)		
21. (speech adj3 ther*) .ti. (750)	22. *Stuttering/ (4021)		
23. (stutter* or stammer*) .ti. (4457)			

24.	((fluency adj disorder?) or dysfluen* or non-fluen*).ti. (269)	
25.	3 or 7 or 8 or 11 or 13 or 19 or 20 or 21 or 22 or 23 or 24 (9645)=P focus	
26.	15 and 25(9083)	
27.	26 (9083)	
28.	limit 27 to yr="2014 -Current" (1292)= P focus + talen na 2014	
29.	18 and 28 (3)= guidelines	
30.	"filter systematic reviews psycinfo".ti. (0)	
31.	(meta-anal* or metaanal*).tw. (34805)	
32.	(quantitativ* adj5 (review* or overview*)).tw. (2322)	
33.	(quantitativ* adj5 (review* or overview*)).id. (63)	
34.	(systematic* adj5 (review* or overview*)).tw,id. (31143)	
35.	(methodolo* adj5 (review* or overview*)).tw,id. (6453)	
36.	((medline or cochrane) adj5 (review* or overview*)).tw. (2543)	
37.	(literature adj5 (overview or review)).tw,id. (77408)	
38.	(synthes* adj3 (literature* or research or studies or data)).tw,id. (8257)	
39.	(pooled adj5 analys*).tw,id.(2093)	
40.	(data adj2 pool*).tw,id.(2147)	
41.	((hand or manual* or database* or computer* or electronic*) adj2 search*).tw,id. (10139)	
42.	"literature review"/ or meta analysis/ (26780)	
43.	or/31-42 (143877)	
44.	28 and 43 (70)= SR	

Cinahl

#	Query
S11	(S1 OR S2 OR S3 OR S4 OR S5 OR S6) AND (systematic review or meta-analysis)
S10	(S1 OR S2 OR S3 OR S4 OR S5 OR S6) AND (systematic review or meta-analysis)
S9	(S1 OR S2 OR S3 OR S4 OR S5 OR S6) AND (guidelines or protocols or practice guideline or clinical practice guideline)
S8	(S1 OR S2 OR S3 OR S4 OR S5 OR S6) AND (guidelines or protocols or practice guideline or clinical practice guideline)
S7	S1 OR S2 OR S3 OR S4 OR S5 OR S6
S6	TI (fluency N1 disorder?) or dysfluen* or non-fluen*
S5	TI stutter* or stammer*
S4	TI (speech N3 ther*)
S3	TI (language N3 ther*)
S2	(MH "Fluency Disorders")
S1	(MH "Rehabilitation, Speech and Language+")

II. Gezocht is naar primaire studies vanaf 1-1-2014 met als bron: Medline/PubMed [specifieke search] specifieke search criteria: geen selectie op studieontwerp; aanwezigheid abstract; taal: Engels

Database Medline/PubMed: 14-10-2019

#1 ("stuttering"[MeSH Terms] OR "stuttering"[All Fields]) OR stutter* [tiab] OR stammer* [tiab]) NOT (review [ptyp] OR systematic[sb]) (557)

Appendix 2 AGREE-beoordeling Duitse Richtlijn Stotteren

AGREE II-scoresheet (beoordeling is oktober 2020 uitgevoerd door: Dr. ir. Hans (J.J.A.) de Beer, richtlijnmethodoloog)

Domain	Item	Agree II-rating						
		1 <i>Strongly disagree</i>	2	3	4	5	6	7 <i>Strongly agree</i>
Scope and purpose	1. The overall objective(s) of the guideline is (are) specifically described.					x		
	2. The health question(s) covered by the guideline is (are) specifically described.	x						
	3. The population (patients, public, etc.) to whom the guideline is meant to apply is specifically described.				x			
Stakeholder involvement	4. The guideline development group includes individuals from all the relevant professional groups.						x	
	5. The views and preferences of the target population (patients, public, etc.) have been sought.	x						
	6. The target users of the guideline are clearly defined.	x						
Rigor of development	7. Systematic methods were used to search for evidence.	Alleen voor evaluatie van therapie						
	8. The criteria for selecting the evidence are clearly described.	x						
	9. The strengths and limitations of the body of evidence are clearly described.			x				

Domain	Item	Agree II-rating						
		1 <i>Strongly disagree</i>	2	3	4	5	6	7 <i>Strongly agree</i>
	10. The methods for formulating the recommendations are clearly described.					x		
	11. The health benefits, side effects and risks have been considered in formulating the recommendations.		x					
	12. There is an explicit link between the recommendations and the supporting evidence	x Geen onderscheid tussen conclusies en aanbevelingen gemaakt!						
	13. The guideline has been externally reviewed by experts prior to its publication.	x						
	14. A procedure for updating the guideline is provided.	x						
Clarity of presentation	15. The recommendations are specific and unambiguous.	Conclusies en aanbevelingen zijn niet onderscheiden. Voor zover het om 'echte' aanbevelingen gaat, vaak lang en niet actief geformuleerd.						
	16. The different options for management of the condition or health issue are clearly presented.				x			
	17. Key recommendations are easily identifiable.	x						
Applicability	18. The guideline describes facilitators and barriers to its application.	x						
	19. The guideline provides advice and/or tools on how		x					

Domain	Item	Agree II-rating						
		1 <i>Strongly disagree</i>	2	3	4	5	6	7 <i>Strongly agree</i>
	the recommendations can be put into practice.							
	20. The potential resource implications of applying the recommendations have been considered.		x					
	21. The guideline presents monitoring and/or auditing criteria.		x					
Editorial independence	22. The views of the funding body have not influenced the content of the guideline.				x			
	23. Competing interests of guideline development group members have been recorded and addressed.						x	
Overall guideline assessment	1. Rate the overall quality of this guideline (lowest-highest possible quality).			x				
	2. I would recommend this guideline for use.	Yes		Yes, with modifications			No	

Toelichting op de negatieve beoordelingspunten van de richtlijn:

- Er staan geen duidelijke (PICO-)uitgangsvragen in.
- Met welke trefwoorden is gezocht wordt niet vermeld.
- Alleen voor effectiviteit van interventies is een systematic review uitgevoerd.
- Welke factoren betrokken zijn bij het opstellen van aanbevelingen is onduidelijk.
- Aanbevelingen en conclusies zijn niet onderscheiden.
- Relatie conclusie en aanbeveling zijn niet inzichtelijk.
- Aanbevelingen zijn breedspakig en niet actief geformuleerd.

Appendix 3 GRADE-beoordeling behorende bij hoofdstuk 5

Auteur(s):

Vraagstelling: LP versus DCM voor stuttering

Setting:

Literatuur: LP versus DCM voor stuttering. Cochrane Database of Systematic Reviews [Year], Issue [Issue].

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	LP	DCM	Relatief (95% CI)	Absoluut (95% CI)		

%SS (3 mo to 18 mo)

2	gerandomiseerde trials	niet ernstig ^a	niet ernstig	niet ernstig	ernstig ^b	niet gevonden	96	103	-	SMD 0.09 lager (0.37 lager tot 0.18 hoger)	⊕⊕⊕○ REDELIJK	CRITICAL
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"Non-stuttering" (follow up: gemiddeld 18 maanden)

1	gerandomiseerde trials	niet ernstig ^c	niet ernstig	ernstig ^d	ernstig ^e	niet gevonden	20/85 (23.5%)	26/91 (28.6%)	OR 0.6 (0.1 tot 2.4)	92 minder per 1.000 (from 247 minder tot 204 meer)	⊕⊕○○ LAAG	CRITICAL
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Costs (follow up: gemiddeld 18 maanden)

1	gerandomiseerde trials	ernstig ^a	niet ernstig	ernstig ^f	niet ernstig	niet gevonden	There is a cost difference of €168 (95% CI: €61 to €277) in favour of DCM. But LP is more cost-effective: investment of €3360 would result in one more child classified as non-stuttering with the LP compared to RESTART-DCM.				⊕⊕○○ LAAG	IMPORTANT
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CI: Confidence interval; **SMD:** Standardised mean difference; **OR:** Odds ratio

Explanations

a. Both studies have problems. Sonnevle-Koedoot et al. (2015): High risk of performance bias due to knowledge of the allocated interventions by participants and personnel during the study. Besides, therapists may have a preference for DCM because in the Netherlands this therapy is widely used and taught to Dutch students for a couple of decades. Serious risk of bias due to incomplete results: Treatment was not completed: At 18 months, 27.6% (27/99) children in the LP group compared to 35.0% (35/100) children in the RESTART-DCM group were still on treatment. Franken et al. (2005): also high risk of performance bias. More than 20% drop-outs. Unclear whether or not selective loss-to-follow-up occurred. High risk of attrition bias.

b. Best estimate of SMD=0.09 shows no difference. When smd=0.20 is considered a small though relevant effect, the CI shows that a relevant effect in favour of LP can not be excluded. So, there is imprecision.

c. Franken et al. (2005): also high risk of performance bias. More than 20% drop-outs. Unclear whether or not selective loss-to-follow-up occurred. High risk of attrition bias.

d. Problems with generalization because population has limitations (high number ineligible) and outcome is NOT non-stuttering but =<1.5%SS.

e. Very wide confidence interval. Assuming 0.75 and 1.25 thresholds for relevant effect, CI crosses both thresholds.

f. It seems this study is based on a sample of patients who party did not finish treatment (De Sonnevle-Koedoot: "At 18 months, 27.6% (27/99) children in the LP group compared to 35.0% (35/100) children in the RESTART-DCM group were still on treatment". So, the economic evaluation results are to some extent indirect.

Appendix 4 Overzicht van systematische reviews van studies naar effectiviteit van stottertherapieën bij kinderen tussen zes en dertien jaar (groep drie t/m groep acht) (hoofdstuk 6)

In de drie systematische reviews die werden geïnccludeerd voor de beantwoording van de onderzoeksvraag naar de gewenste en ongewenste effecten van stottertherapieën bij kinderen tussen zes en dertien jaar worden drie verschillende RCT's besproken en twee studies met een quasi-experimenteel design (QED) (tabel 6.1).

	Design	Interventie	N	Leeftijd	Follow-up duur	Uitkomstmaat
Ladouceur & Martineau (1982)	RCT	ademregulatie, ademregulatie thuis, controle	21 (7/7/7)	5 - 16 jr.	1 maand	stotterpercentage spreektempo
Ryan & Ryan (1983)	QED	modificatie, DAF ^a , Time Out, GILCU ^b	16 (4/4/4/4)	7 - 18 jr.	6 maanden	SW/M ^c WS/M ^d
Ryan & Ryan (1995)	RCT	DAF, GILCU	20	7 - 17 jr.	niet te definiëren	SW/M WS/M
Craig et al. (1996)	QED	EMG ^e , Intensive Smooth Speech, Smooth Speech Home, Controle	97	9 - 14 jr.	12 maanden	stotterpercentage spreektempo in lettergrepen per minuut
Riley & Ingham (2000)	RCT	SMT ^f , ELU ^g	12	3;8 - 8;4 jr.	niet te definiëren	stotterpercentage

Tabel 6.1. Samenvatting van de RCT's en QED uit de systematische reviews van Bothe et al. (2006), Herder et al. (2006) en Nye et al. (2012)

a. Delayed Auditory Feedback

b. Gradual Increase in Linguistic Complexity of Utterance

- c. Stuttered words per minute
- d. Words spoken per minute
- e. Electromyography Feedback
- f. Speech Motor Training
- g. Extended Length of Utterance

Studie	Statistische gegevens per studie					
	Interventie N	Controle N	Hedges' G	Ondergrens BI	Bovengrens BI	p-waarde
Craig et al. (1996)	26	20	1.75	1.05	2.45	.001

Tabel 6.2. Effectgrootte, 95%-betrouwbaarheidsinterval en p-waarde voor het percentage gestotterde lettergrepen bij kinderen tussen zes en dertien jaar van studies met een interventie- versus controlegroep, RCT-design en nameting direct na interventie (Nye et al. 2012)

Beoordeling met GRADE

- risk of bias: met -1 afgewaardeerd
- indirectness: met -1 afgewaardeerd vanwege vergelijking één controlegroep met drie interventiegroepen? (in totaal van de publicaties afwaarderen aangezien alle therapieën verschillen)
- imprecision: geen aanleiding om af te waarderen (ondergrens van betrouwbaarheidsinterval is > 0.5)
- inconsistency: niet van toepassing
- publicatiebias: geen aanleiding om af te waarderen
- report-bias: met -1 afgewaardeerd aangezien niet alle psychologische maten worden gerapporteerd

In de studie van Ryan en Ryan (1995) wordt het effect van Delayed Auditory Feedback om langzame verlengde spraak te produceren en zo stotteren te verminderen vergeleken met het effect van Gradual Increase in Length and Complexity of Utterance (GILCU). GILCU is een Fluency Shaping-programma gebaseerd op operante conditionering waarbij in gestructureerde stappen vloeiend spreken wordt bevorderd. Resultaten voor de uitkomstmaten percentage gestotterde lettergrepen, gestotterde woorden per minuut en het aantal woorden per minuut voor twintig kinderen in de leeftijd tussen zeven en zeventien jaar worden gerapporteerd, postinterventie en veertien maanden na-interventie. In 18,3 uur reduceerden de elf deelnemers die de programma's voltooiden het aantal gestotterde woorden per minuut van 7,9 naar 0,8. Tijdens een meting na veertien maanden follow-up bleek de vloeiende spraak behouden. Het in de systematische review van Nye et al. (2012) berekende effect van de vergelijkende studie van Ryan & Ryan (1995) bedraagt $g = 0.295$ (95% BI: -0.797 – 1.387) (tabel 6.3). Uitgaande van een drempelwaarde van (-)0.5 (de drempelwaarde voor klinische relevantie die door de GRADE-workinggroup als gangbaar wordt beschouwd) wijst de puntschatting van 0.295 niet op een klinisch relevant verschil in reductie van het percentage gestotterde lettergrepen na behandeling met DAF in vergelijking met behandeling met GILCU. De ondergrens (-0.797) en bovengrens (1.387) van het 95%-betrouwbaarheidsinterval overschrijden beide de drempelwaarde van (-)0.5 voor klinische relevantie. Dit impliceert de mogelijkheid dat DAF duidelijk effectiever is dan GILCU, maar ook nog de mogelijkheid dat GILCU duidelijk effectiever is dan DAF. De onnauwkeurigheid van het resultaat (de breedte van het 95%-betrouwbaarheidsinterval spreidt zich uit tussen -0.797 en 1.387 ($g = 0.295$)) en het hoger risico op bias (appendix 4A) maken dat we onzeker zijn of het in deze studie geschatte effect

het werkelijke effect van behandeling met DAF of met GILCU benadert. Kwaliteit van het gevonden bewijs wordt als zeer laag beoordeeld.

Studie	Interventies & uitkomstmaten		Statistiek				
			Hedges' g	Ondergrens BI	Bovengrens BI	TX1 N	TX2 N
Ryan & Ryan (1995)	DAF ^a vs GILCU ^b	SWM	0.295	-0.797	1.387	5	6
Riley & Ingham (2000)	SMT ^c vs ELU ^d	%SS	-1.079	-2.209	0.051	6	6

Tabel 6.3. Effectgrootte en 95%-betrouwbaarheidsinterval van studies met een RCT-design waarin twee interventies met elkaar worden vergeleken, zonder controlegroep (Nye et al. 2012)

- a. Delayed Auditory Feedback
- b. Gradual Increase in Length hand Complexity of Utterance
- c. Speech Motor Training
- d. Extended Length of Utterance

Beoordeling met GRADE (Ryan & Ryan, 1995)

- risk of bias: met -1 afgewaardeerd (zie appendix 4A)
- indirectness: met -1 afgewaardeerd aangezien de leeftijdsgrenzen van de onderzoekspopulatie niet overeenkomen met de populatie van de uitgangsvraag en geen subgroepanalyse voor 6-13-jarigen is uitgevoerd
- imprecision: met -1 afgewaardeerd (ondergrens van betrouwbaarheidsinterval is < 0.5)
- inconsistency: niet van toepassing
- report-bias: met -1 afgewaardeerd aangezien relevante informatie ontbreekt
- publicatiebias: geen aanleiding om af te waarderen

Riley en Ingham (2000) vergeleken het effect van Speech Motor Training (SMT) met het effect van Extended Length of Utterance (ELU) op de uitkomstmaat percentage gestotterde lettergrepen bij twaalf kinderen tussen 3;8 en 8;4 jaar. SMT heeft tot doel de spraakmotorische planning te verbeteren en daarmee het stotteren te verminderen. Het doel van ELU is stottervrije spraak te bevorderen door respons-contingente stimulatie aan te bieden in betekenisvolle linguïstische taken. SMT verminderde het mediane stotterpercentage met 36,5%. Dit verschil was significant (Wilcoxon matched-pair analyse ($z = -2.0$, $p = 0.04$)). ELU reduceerde het stotterpercentage met 63,5%. Mann-Whitney U-analyse indiceert dat het verschil in reductie van het stotterpercentage tussen SMT en ELU statistisch significant is ($z = -2.1$; $p = 0.04$).

Het in de systematische review van Nye et al. (2012) berekende effect van de studie naar SMT in vergelijking met Extended Length of Utterance (ELU) (Riley & Ingham, 2000) bedraagt $g = -1.079$ (95% BI: -2.209 – 0.051) (tabel 6.3). Uitgaande van een drempelwaarde van (-)0.5 (de drempelwaarde voor klinische relevantie die door de GRADE-workinggroup als gangbaar wordt beschouwd) wijst de puntschatting van -1.079 op een klinisch relevant verschil in reductie

van het percentage gestotterde lettergrepen na behandeling met het SMT in vergelijking met behandeling gebaseerd op ELU. De onnauwkeurigheid van het resultaat (de breedte van het 95%-betrouwbaarheidsinterval spreidt zich echter uit tussen -2.209 en 0.051 ($g = -1.079$)) en het hoge risico op bias (appendix 4A) maken dat we zeer onzeker zijn over het in deze studie geschatte effect voor kinderen die stotteren tussen zes en twaalf jaar, mede doordat de onderzoekspopulatie de doelpopulatie van de uitgangsvraag niet volledig overeenkomen en geen subgroepanalyse voor deze leeftijdscategorie is uitgevoerd. Kwaliteit van het gevonden bewijs wordt als zeer laag beoordeeld.

Bothe et al. (2006)

In de systematische review van Bothe et al. (2006) worden vier studies besproken waarbij het effect van stottertherapie bij zes- tot tot dertienjarige kinderen wordt vergeleken in een RCT of QED. Het betreft twee studies die eveneens in de systematische review van Nye et al. (2012) werden besproken; Craig et al. (1996) en Ryan en Ryan (1995).

In de RCT van Ladouceur & Martineau (1982) wordt het effect van ademregulatietherapie, met en zonder ondersteuning van de ouders van kinderen tussen vijf en vijftien jaar, vergeleken met een niet behandelde controlegroep. Het in Bothe et al. (2006) gehanteerde criterium minder dan 5% gestotterde lettergrepen direct na drie weken behandeling werd bereikt. Een statistisch significant verschil in de reductie van gestotterde lettergrepen tussen de interventiegroep en de niet behandelde controlegroep na behandeling in vergelijking met de situatie voor de behandeling werd niet aangetoond ($F_{92,17} = 1.23$, $p > 0.05$).

Ryan en Ryan (1983) vergeleken het effect op het aantal gestotterde woorden per minuut en het aantal gesproken woorden per minuut van stottermodificatiebehandeling, delayed auditory-feedback, pauzeren en GILCU bij zestien kinderen die stotteren in de leeftijd van zeven tot achttien jaar. De auteurs concluderen dat het vloeiend spreken van de zestien kinderen door alle vier de interventies in belangrijke mate is toegenomen. Het experimentele karakter van de studie, waarbij een niet behandelde controlegroep ontbreekt. Het gegeven dat het aantal deelnemers per interventie zeer beperkt is en het risico op bias zeer hoog, maakt dat we weinig vertrouwen hebben in de kwaliteit van het bewijs van deze studie. Een statistische analyse wordt in de publicatie niet beschreven.

Deze studie is niet verder meegenomen in de uitwerking van het bewijs van werkzaamheid voor de uitgangsvraag naar de effectiviteit van stottertherapie bij kinderen tussen zes en dertien jaar.

Herder et al. (2006)

Herder et al. bespreken in hun systematische reviews uit 2006 twee RCT's waarin de effectiviteit van gedragsinterventies op het vloeiend spreken van stotterende kinderen, in de leeftijd tussen twee en achttien jaar, werd geëvalueerd. Het betreft de studies van Ryan en Ryan (1995) en Riley en Ingham (2000). Beide studies werden in dit document besproken in de systematische review van Nye et al. (2012).

Appendix 4A. Risk of Bias Randomised Controlled Trials & Quasi Experimenteel Onderzoek

Studie (1 ^{ste} auteur, jaar van publicatie, aantal proefpersonen)	Randomisation adequate?	Allocation concealed?	Groups similar at baseline?	Patient blinded?	Care provider blinded?	Outcome assessor blinded?	Co interventions avoided or similar?	Compliance acceptable?	Drop-out rate described and acceptable?	Timing outcome assessment similar?	Intention-to-treat analysis?	No selective reporting of outcome?	Risk of bias per studie per uitkomstmaat
Craig 1996 (N=97)	-	-	+/-	n.v.t.	n.v.t.	+	?	+	+	-	?	+	% SS: hoog SPM: hoog
Ladouceur 1982 (N=21)	+	?	+/- ¹	n.v.t.	n.v.t.	+	?	?	+	+	-	+	% SS: matig
Riley 2000 (N=12)	+	?	+	n.v.t.	n.v.t.	?	?	?	?	+	?	+	% SS: hoog
Ryan 1983 (N=16)	-	-	+	n.v.t.	n.v.t.	-	?	?	-	+	-	+/-	SWM: zeer hoog
Ryan 1995 (N=20)	+	?	+	n.v.t.	n.v.t.	?	?	-	+ ²	+	-	+/-	% SS: hoog
Hancock 1998 (N=62) longterm-follow-up Craig 1996	n.v.t.	n.v.t.	?	n.v.t.	n.v.t.	?	-	+	+	-	-	?	stotterpercentage zeer hoog

¹ Verdeling naar geslacht is niet beschreven en verdeling naar aanwezigheid van persisterend stotteren in de familie is niet uitgevoerd.

² Drop-out rate of 20% is acceptabel.

Riley

- risk of bias (-2): uitvoering van de studie te onvolledig beschreven
- indirectness: (-1): met -1 afgewaardeerd aangezien de leeftijdsgrenzen van de onderzoekspopulatie niet overeenkomen met de populatie van de uitgangsvraag en geen subgroup analyse voor 6-13-jarigen is uitgevoerd
- imprecision (-1): zeer wijde betrouwbaarheidsintervallen
- inconsistency: geen aanleiding om af te waarderen
- publication bias: (-1) methode onvoldoende beschreven

Appendix 5 Evidence-tabel effectiviteit van gedragsinterventies

Studie (1 ^{ste} auteur, jaar van publicatie)	Randomisation adequate?	Allocation concealed?	Groups similar at baseline?	Patient blinded?	Care provider blinded?	Outcome assessor blinded?	Co interventions avoided/similar?	Compliance acceptable?	Drop-out rate described/acceptable?	Timing outcome assessment similar?	Intention-to-treat analysis?	No selective reporting of outcome?	Risk of bias per studie per uitkomstmaat
Perkins 1974 (N=44)	-	-	-	nvt	nvt	-	?	?	-	+	+	+	Spreeksnelheid: <i>hoog</i> Stotterfrequentie: <i>hoog</i> SEC-variabelen: <i>hoog</i>
James 1989 (N=24; 4 drop-outs)	-	-	-	nvt	nvt	-	?	?	±	+	+	+	Spreeksnelheid: <i>hoog</i> Stotterfrequentie: <i>hoog</i>
Ladouceur 1986 (N=16)	-	-	?	nvt	nvt	-	?	?	?	+	+	+	Spreeksnelheid: <i>hoog</i> Stotterfrequentie: <i>hoog</i>
Miltenberger 1996 (N=2)	-	-	-	nvt	nvt	-	?	?	+	+	+	+	Spreeksnelheid: <i>hoog</i> Stotterfrequentie: <i>hoog</i>
Saint-Laurant 1987 (N=40)	+	-	?	nvt	nvt	+	+	?	+	-	+	+	Spreeksnelheid: <i>matig</i> Stotterfrequentie: <i>matig</i>
Ost 1976 (N=15)	±	-	?	nvt	nvt	+	+	?	+	+	+	+	Spreeksnelheid: <i>matig</i> Stotterfrequentie: <i>matig</i>
Carey et al. (2010)	+	+	+	nvt	nvt	+	+	+	+	+	+	?	Stotterpercentage: <i>laag</i> (spreeksnelheid niet geëvalueerd)
Cream et al. (2010)	+	+	+	nvt	+	+	+	-	+	+	+	+	Alle uitkomsten (zie tekst: <i>laag tot matig</i> (vanwege beperkte compliance))
Menzies et al. (2008)	+	?	-	nvt	nvt	+	+	?	- (> 20%)	+	-	+	Stotterfrequentie: <i>matig</i> Sociale angst: <i>matig</i>
Huinck et al. (2004)	-	-	-	nvt	nvt	?	+	+	-	+	-	+	Voor alle uitkomstmaten: <i>matig/hoog</i>

Appendix 6 Evidence-tabel gedrags- en cognitieve interventies

Author(s): Hans de Beer. Date: 2013-03-06

Question: Should behavioral and cognitive approaches be used for stuttering?

Bibliography: Bothe, et al. Stuttering Treatment Research 1970-2005: I. Systematic Review Incorporating Trial Quality Assessment of Behavioral, Cognitive, and Related Approaches, *American Journal of Speech-Language Therapy*, 15, 321-341.

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Behavioral and cognitive approaches	Control	Relative (95% CI)	Absolute		
Stuttered syllables (follow-up >=6 months; Better indicated by higher values)												
6	randomised trials ¹	serious ²	serious ³	no serious indirectness	no serious imprecision ⁴	None	141 ⁵	-	-	not pooled	LOW	CRITICAL
Number of syllables per minute (follow-up >=6 months; Better indicated by lower values)												
6	randomised trials ¹	serious ²	serious ³	no serious indirectness	no serious imprecision ⁴	None	141 ⁵	-	-	not pooled	LOW	CRITICAL

¹ Niet alle studies zijn gerandomiseerde trials, maar ook geen observationele studies.

² Meeste studies zijn niet gerandomiseerd. Geblindeerd vaststellen van de uitkomsten gebeurt meestal niet. Er is onzekerheid over vergelijkbaarheid van groepen.

³ Er is een aanzienlijke spreiding in de uitkomsten van individuele studies.

⁴ Dit is moeilijk vast te stellen, omdat de gegevens ontbreken om een gecombineerde schatting te maken.

⁵ Dit betreft het totaal aantal geëvalueerde proefpersonen.

Appendix 7 AMSTAR-checklist Connery 2019

Bron: https://amstar.ca/Amstar_Checklist.php

Article Name: Connery 2019. The lived experience of stuttering

1. Did the research questions and inclusion criteria for the review include the components of PICO?

For Yes:

☒ Population

☒ Intervention

☒ Comparator group

☒ Outcome

Optional (recommended)

☒ Timeframe for follow up

☒ Yes

☐ No

2. Did the report of the review contain an explicit statement that the review methods were established prior to the conduct of the review and did the report justify any significant deviations from the protocol?

For Partial Yes:

The authors state that they had a written protocol or guide that included ALL the following:

For Yes:

As for partial yes, plus the protocol should be registered and should also have specified:

- | | | |
|--|---|---|
| ☒ review question(s) | ☒ a meta-analysis/synthesis plan, if appropriate, and | ☒ Yes |
| ☒ a search strategy | ☒ a plan for investigating causes of heterogeneity | ☐ Partial Yes |
| ☒ inclusion/exclusion criteria | ☒ a plan for investigating causes of heterogeneity | ☐ No |
| ☒ a risk of bias assessment | | |
-

3. Did the review authors explain their selection of the study designs for inclusion in the review?

For Yes, the review should satisfy ONE of the following:

- | | |
|---|---|
| ☐ Explanation for including only RCTs | ☒ Yes |
| ☐ OR Explanation for including only NRSI | ☐ No |
| ☒ OR Explanation for including both RCTs and NRSI | |
-

4. Did the review authors use a comprehensive literature search strategy?

For Partial Yes (all the following):

- ☒ searched at least 2 databases (relevant to research question)
- ☒ provided key word and/or search strategy
- ☐ justified publication restrictions (e.g. language)

For Yes, should also have (all the following):

- | | |
|---|---|
| ☐ searched the reference lists / bibliographies of included studies | ☐ Yes |
| ☐ searched trial/study registries | ☒ Partial Yes |
| ☐ included/consulted content experts in the field | ☐ No |
| ☐ where relevant, searched for grey literature | |
| ☒ conducted search within 24 months of completion of the review | |
-

5. Did the review authors perform study selection in duplicate?

For Yes, either ONE of the following:

- | | |
|---|---|
| ☒ at least two reviewers independently agreed on selection of eligible studies and achieved consensus on which studies to include | ☒ Yes |
| | ☐ No |

☐ OR two reviewers selected a sample of eligible studies and achieved good agreement (at least 80 percent), with the remainder selected by one reviewer.

6. Did the review authors perform data extraction in duplicate?

For Yes, either ONE of the following:

- ☐ at least two reviewers achieved consensus on which data to extract from included studies ☒ Yes ☐ No
- ☐ OR two reviewers extracted data from a sample of eligible studies and achieved good agreement (at least 80 percent), with the remainder extracted by one reviewer.
-

7. Did the review authors provide a list of excluded studies and justify the exclusions?

For Partial Yes:

☐ provided a list of all potentially relevant studies that were read in full-text form but excluded from the review

For Yes, must also have:

☐ Justified the exclusion from the review of each potentially relevant study ☐ Yes ☐ Partial Yes ☒ No

8. Did the review authors describe the included studies in adequate detail?

For Partial Yes (ALL the following):

- ☒ described populations
- ☒ described interventions
- ☒ described comparators
- ☒ described outcomes
- ☒ described research designs

For Yes, should also have ALL the following:

- ☐ described population in detail ☐ Yes ☒ Partial Yes ☐ No
- ☐ described intervention in detail (including doses where relevant)
- ☐ described comparator in detail (including doses where relevant)
- ☐ described study's setting
- ☐ timeframe for follow-up
-

9. Did the review authors use a satisfactory technique for assessing the risk of bias (RoB) in individual studies that were included in the review?

RCTs

For Partial Yes, must have assessed RoB from

For Yes, must also have assessed RoB from:

- | | | |
|--|---|--|
| ☐ unconcealed allocation, and | ☐ allocation sequence that was not truly random, and | ☐ Yes |
| ☐ lack of blinding of patients and assessors when assessing outcomes (unnecessary for objective outcomes such as all-cause mortality) | ☐ selection of the reported result from among multiple measurements or analyses of a specified outcome | ☐ Partial Yes |
| | | ☐ No |
| | | ☒ Includes only NRSI |

NRSI

For Partial Yes, must have assessed RoB:

- ☒ from confounding, and
- ☒ from selection bias

For Yes, must also have assessed RoB:

- ☒ methods used to ascertain exposures and outcomes, and
- ☒ selection of the reported result from among multiple measurements or analyses of a specified outcome

- ☒ Yes
- ☐ Partial Yes
- ☐ No
- ☐ Includes only RCTs

10. Did the review authors report on the sources of funding for the studies included in the review?

For Yes

- | | |
|---|--|
| ☐ Must have reported on the sources of funding for individual studies included in the review. Note: Reporting that the reviewers looked for this information but it was not reported by study authors also qualifies | ☐ Yes |
| | ☒ No |

11. If meta-analysis was performed did the review authors use appropriate methods for statistical combination of results?

RCTs

For Yes:

- | | |
|--|--|
| ☐ The authors justified combining the data in a meta-analysis | ☐ Yes |
| ☐ AND they used an appropriate weighted technique to combine study results and adjusted for heterogeneity if present. | ☐ No |
| ☐ AND investigated the causes of any heterogeneity | ☒ No meta-analysis conducted |

For NRSI

For Yes:

- | | |
|---|---|
| ☒ The authors justified combining the data in a meta-analysis | ☒ Yes |
| | ☐ No |

- ☒ AND they used an appropriate weighted technique to combine study results, adjusting for heterogeneity if present ☐ No meta-analysis conducted
- ☒ AND they statistically combined effect estimates from NRSI that were adjusted for confounding, rather than combining raw data, or justified combining raw data when adjusted effect estimates were not available
- ☒ AND they reported separate summary estimates for RCTs and NRSI separately when both were included in the review
-

12. If meta-analysis was performed, did the review authors assess the potential impact of RoB in individual studies on the results of the meta-analysis or other evidence synthesis?

For Yes:

- ☐ included only low risk of bias RCTs ☐ Yes
- ☐ OR, if the pooled estimate was based on RCTs and/or NRSI at variable RoB, the authors performed analyses to investigate possible impact of RoB on summary estimates of effect. ☒ No
- ☐ No meta-analysis conducted
-

13. Did the review authors account for RoB in individual studies when interpreting/discussing the results of the review?

For Yes:

- ☐ included only low risk of bias RCTs ☐ Yes
- ☐ OR, if RCTs with moderate or high RoB, or NRSI were included the review provided a discussion of the likely impact of RoB on the results ☒ No
-

14. Did the review authors provide a satisfactory explanation for, and discussion of, any heterogeneity observed in the results of the review?

For Yes:

- ☐ There was no significant heterogeneity in the results ☐ Yes
- ☐ OR if heterogeneity was present the authors performed an investigation of sources of any heterogeneity in the results and discussed the impact of this on the results of the review ☒ No

15. If they performed quantitative synthesis did the review authors carry out an adequate investigation of publication bias (small study bias) and discuss its likely impact on the results of the review?

For Yes:

- | | |
|---|---|
| ☐ performed graphical or statistical tests for publication bias and discussed the likelihood and magnitude of impact of publication bias | ☐ Yes |
| | ☒ No |
| | ☐ No meta-analysis conducted |
-

16. Did the review authors report any potential sources of conflict of interest, including any funding they received for conducting the review?

For Yes:

- | | |
|---|---|
| ☒ The authors reported no competing interests OR | ☒ Yes |
| ☐ The authors described their funding sources and how they managed potential conflicts of interest | ☐ No |
-

To cite this tool: Shea BJ, Reeves BC, Wells G, Thuku M, Hamel C, Moran J, Moher D, Tugwell P, Welch V, Kristjansson E, Henry DA. AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both. BMJ. 2017 Sep 21;358:j4008.

Appendix 8 AMSTAR-checklist Baxter 2015

Bron: https://amstar.ca/Amstar_Checklist.php

Article Name: Baxter 2015. Non-pharmacological management

1. Did the research questions and inclusion criteria for the review include the components of PICO?

For Yes:

☒ Population

☒ Intervention

☒ Comparator group

☒ Outcome

Optional (recommended)

☐ Timeframe for follow up

☐ Yes

☒ No

2. Did the report of the review contain an explicit statement that the review methods were established prior to the conduct of the review and did the report justify any significant deviations from the protocol?

For Partial Yes:

The authors state that they had a written protocol or guide that included ALL the following:

For Yes:

As for partial yes, plus the protocol should be registered and should also have specified:

- | | | |
|--|---|---|
| ☒ review question(s) | ☒ a meta-analysis/synthesis plan, if appropriate, and | ☒ Yes |
| ☒ a search strategy | ☒ a plan for investigating causes of heterogeneity | ☐ Partial Yes |
| ☒ inclusion/exclusion criteria | ☒ a plan for investigating causes of heterogeneity | ☐ No |
| ☒ a risk of bias assessment | | |

3. Did the review authors explain their selection of the study designs for inclusion in the review?

For Yes, the review should satisfy ONE of the following:

- | | |
|---|---|
| ☐ Explanation for including only RCTs | ☒ Yes |
| ☐ OR Explanation for including only NRSI | ☐ No |
| ☒ OR Explanation for including both RCTs and NRSI | |

4. Did the review authors use a comprehensive literature search strategy?

For Partial Yes (all the following):

- ☒ searched at least 2 databases (relevant to research question)
- ☐ provided key word and/or search strategy
- ☒ justified publication restrictions (e.g. language)

For Yes, should also have (all the following):

- | | |
|---|---|
| ☒ searched the reference lists / bibliographies of included studies | ☐ Yes |
| ☐ searched trial/study registries | ☒ Partial Yes |
| ☒ included/consulted content experts in the field | ☐ No |
| ☐ where relevant, searched for grey literature | |
| ☒ conducted search within 24 months of completion of the review | |

5. Did the review authors perform study selection in duplicate?

For Yes, either ONE of the following:

- | | |
|---|---|
| ☒ at least two reviewers independently agreed on selection of eligible studies and achieved consensus on which studies to include | ☒ Yes |
| | ☐ No |

- ☐ OR two reviewers selected a sample of eligible studies and achieved good agreement (at least 80 percent), with the remainder selected by one reviewer.

6. Did the review authors perform data extraction in duplicate?

For Yes, either ONE of the following:

- ☐ at least two reviewers achieved consensus on which data to extract from included studies ☒ Yes ☐ No
- ☐ OR two reviewers extracted data from a sample of eligible studies and achieved good agreement (at least 80 percent), with the remainder extracted by one reviewer.

7. Did the review authors provide a list of excluded studies and justify the exclusions?

For Partial Yes:

- ☐ provided a list of all potentially relevant studies that were read in full-text form but excluded from the review

For Yes, must also have:

- ☐ Justified the exclusion from the review of each potentially relevant study ☐ Yes ☐ Partial Yes ☒ No

8. Did the review authors describe the included studies in adequate detail?

For Partial Yes (ALL the following):

- ☒ described populations
☒ described interventions
☒ described comparators
☒ described outcomes
☐ described research designs

For Yes, should also have ALL the following:

- ☐ described population in detail ☐ Yes
☐ described intervention in detail (including doses where relevant) ☒ Partial Yes ☐ No
☐ described comparator in detail (including doses where relevant)
☐ described study's setting
☐ timeframe for follow-up

9. Did the review authors use a satisfactory technique for assessing the risk of bias (RoB) in individual studies that were included in the review?

RCTs

For Partial Yes, must have assessed RoB from

For Yes, must also have assessed RoB from:

- | | | |
|---|--|---|
| ☒ unconcealed allocation, and | ☒ allocation sequence that was not truly random, and | ☒ Yes |
| ☒ lack of blinding of patients and assessors when assessing outcomes (unnecessary for objective outcomes such as all-cause mortality) | ☒ selection of the reported result from among multiple measurements or analyses of a specified outcome | ☐ Partial Yes |
| | | ☐ No |
| | | ☐ Includes only NRSI |

NRSI

For Partial Yes, must have assessed RoB:

- ☒ from confounding, and
- ☒ from selection bias

For Yes, must also have assessed RoB:

- ☒ methods used to ascertain exposures and outcomes, and
- ☒ selection of the reported result from among multiple measurements or analyses of a specified outcome

- ☒ Yes
- ☐ Partial Yes
- ☐ No
- ☐ Includes only RCTs

10. Did the review authors report on the sources of funding for the studies included in the review?

For Yes

- | | |
|---|--|
| ☐ Must have reported on the sources of funding for individual studies included in the review. Note: Reporting that the reviewers looked for this information but it was not reported by study authors also qualifies | ☐ Yes |
| | ☒ No |

11. If meta-analysis was performed did the review authors use appropriate methods for statistical combination of results?

RCTs

For Yes:

- | | |
|--|--|
| ☐ The authors justified combining the data in a meta-analysis | ☐ Yes |
| ☐ AND they used an appropriate weighted technique to combine study results and adjusted for heterogeneity if present. | ☐ No |
| ☐ AND investigated the causes of any heterogeneity | ☒ No meta-analysis conducted |

For NRSI

For Yes:

- | | |
|--|------------------------------|
| ☐ The authors justified combining the data in a meta-analysis | ☐ Yes |
| | ☐ No |

- ☐ AND they used an appropriate weighted technique to combine study results, adjusting for heterogeneity if present ☒ No meta-analysis conducted
- ☐ AND they statistically combined effect estimates from NRSI that were adjusted for confounding, rather than combining raw data, or justified combining raw data when adjusted effect estimates were not available
- ☐ AND they reported separate summary estimates for RCTs and NRSI separately when both were included in the review
-

12. If meta-analysis was performed, did the review authors assess the potential impact of RoB in individual studies on the results of the meta-analysis or other evidence synthesis?

For Yes:

- ☐ included only low risk of bias RCTs ☐ Yes
- ☐ OR, if the pooled estimate was based on RCTs and/or NRSI at variable RoB, the authors performed analyses to investigate possible impact of RoB on summary estimates of effect. ☐ No
- ☒ No meta-analysis conducted
-

13. Did the review authors account for RoB in individual studies when interpreting/discussing the results of the review?

For Yes:

- ☐ included only low risk of bias RCTs ☐ Yes
- ☐ OR, if RCTs with moderate or high RoB, or NRSI were included the review provided a discussion of the likely impact of RoB on the results ☒ No
-

14. Did the review authors provide a satisfactory explanation for, and discussion of, any heterogeneity observed in the results of the review?

For Yes:

- ☐ There was no significant heterogeneity in the results ☒ Yes
- ☒ OR if heterogeneity was present the authors performed an investigation of sources of any heterogeneity in the results and discussed the impact of this on the results of the review ☐ No

15. If they performed quantitative synthesis did the review authors carry out an adequate investigation of publication bias (small study bias) and discuss its likely impact on the results of the review?

For Yes:

- ☐ performed graphical or statistical tests for publication bias and discussed the likelihood and magnitude of impact of publication bias
- ☐ Yes
☐ No
☒ No meta-analysis conducted
-

16. Did the review authors report any potential sources of conflict of interest, including any funding they received for conducting the review?

For Yes:

- ☐ The authors reported no competing interests OR
- ☐ The authors described their funding sources and how they managed potential conflicts of interest
- ☒ Yes
☐ No
-

To cite this tool: Shea BJ, Reeves BC, Wells G, Thuku M, Hamel C, Moran J, Moher D, Tugwell P, Welch V, Kristjansson E, Henry DA. AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both. BMJ. 2017 Sep 21;358:j4008.

Appendix 9 AMSTAR-checklist Baxter 2016

Bron: https://amstar.ca/Amstar_Checklist.php

Article Name: Baxter 2016. Non-pharmacological management & barriers to successful ou

1. Did the research questions and inclusion criteria for the review include the components of PICO?

For Yes:

☒ Population

☒ Intervention

☒ Comparator group

☒ Outcome

Optional (recommended)

☐ Timeframe for follow up

☐ Yes

☒ No

2. Did the report of the review contain an explicit statement that the review methods were established prior to the conduct of the review and did the report justify any significant deviations from the protocol?

For Partial Yes:

The authors state that they had a written protocol or guide that included ALL the following:

For Yes:

As for partial yes, plus the protocol should be registered and should also have specified:

- | | | |
|--|---|---|
| ☒ review question(s) | ☒ a meta-analysis/synthesis plan, if appropriate, and | ☒ Yes |
| ☒ a search strategy | ☒ a plan for investigating causes of heterogeneity | ☐ Partial Yes |
| ☒ inclusion/exclusion criteria | ☒ a plan for investigating causes of heterogeneity | ☐ No |
| ☒ a risk of bias assessment | | |

3. Did the review authors explain their selection of the study designs for inclusion in the review?

For Yes, the review should satisfy ONE of the following:

- | | |
|---|---|
| ☐ Explanation for including only RCTs | ☒ Yes |
| ☐ OR Explanation for including only NRSI | ☐ No |
| ☒ OR Explanation for including both RCTs and NRSI | |

4. Did the review authors use a comprehensive literature search strategy?

For Partial Yes (all the following):

- ☒ searched at least 2 databases (relevant to research question)
- ☒ provided key word and/or search strategy
- ☒ justified publication restrictions (e.g. language)

For Yes, should also have (all the following):

- | | |
|---|---|
| ☒ searched the reference lists / bibliographies of included studies | ☐ Yes |
| ☐ searched trial/study registries | ☒ Partial Yes |
| ☒ included/consulted content experts in the field | ☐ No |
| ☒ where relevant, searched for grey literature | |
| ☒ conducted search within 24 months of completion of the review | |

5. Did the review authors perform study selection in duplicate?

For Yes, either ONE of the following:

- | | |
|---|---|
| ☒ at least two reviewers independently agreed on selection of eligible studies and achieved consensus on which studies to include | ☒ Yes |
| | ☐ No |

- ☐ OR two reviewers selected a sample of eligible studies and achieved good agreement (at least 80 percent), with the remainder selected by one reviewer.

6. Did the review authors perform data extraction in duplicate?

For Yes, either ONE of the following:

- ☐ at least two reviewers achieved consensus on which data to extract from included studies ☒ Yes ☐ No
- ☐ OR two reviewers extracted data from a sample of eligible studies and achieved good agreement (at least 80 percent), with the remainder extracted by one reviewer.

7. Did the review authors provide a list of excluded studies and justify the exclusions?

For Partial Yes:

- ☒ provided a list of all potentially relevant studies that were read in full-text form but excluded from the review

For Yes, must also have:

- ☒ Justified the exclusion from the review of each potentially relevant study ☒ Yes ☐ Partial Yes ☐ No

8. Did the review authors describe the included studies in adequate detail?

For Partial Yes (ALL the following):

- ☒ described populations
☒ described interventions
☒ described comparators
☒ described outcomes
☐ described research designs

For Yes, should also have ALL the following:

- ☒ described population in detail ☒ Yes ☐ Partial Yes ☐ No
☒ described intervention in detail (including doses where relevant)
☒ described comparator in detail (including doses where relevant)
☒ described study's setting
☒ timeframe for follow-up

9. Did the review authors use a satisfactory technique for assessing the risk of bias (RoB) in individual studies that were included in the review?

RCTs

For Partial Yes, must have assessed RoB from

For Yes, must also have assessed RoB from:

- | | | |
|---|--|---|
| ☒ unconcealed allocation, and | ☒ allocation sequence that was not truly random, and | ☒ Yes |
| ☒ lack of blinding of patients and assessors when assessing outcomes (unnecessary for objective outcomes such as all-cause mortality) | ☒ selection of the reported result from among multiple measurements or analyses of a specified outcome | ☐ Partial Yes |
| | | ☐ No |
| | | ☐ Includes only NRSI |

NRSI

For Partial Yes, must have assessed RoB:

- ☒ from confounding, and
- ☒ from selection bias

For Yes, must also have assessed RoB:

- ☒ methods used to ascertain exposures and outcomes, and
- ☒ selection of the reported result from among multiple measurements or analyses of a specified outcome

- ☒ Yes
- ☐ Partial Yes
- ☐ No
- ☐ Includes only RCTs

10. Did the review authors report on the sources of funding for the studies included in the review?

For Yes

- | | |
|---|--|
| ☐ Must have reported on the sources of funding for individual studies included in the review. Note: Reporting that the reviewers looked for this information but it was not reported by study authors also qualifies | ☐ Yes |
| | ☒ No |

11. If meta-analysis was performed did the review authors use appropriate methods for statistical combination of results?

RCTs

For Yes:

- | | |
|--|--|
| ☐ The authors justified combining the data in a meta-analysis | ☐ Yes |
| ☐ AND they used an appropriate weighted technique to combine study results and adjusted for heterogeneity if present. | ☐ No |
| ☐ AND investigated the causes of any heterogeneity | ☒ No meta-analysis conducted |

For NRSI

For Yes:

- | | |
|--|------------------------------|
| ☐ The authors justified combining the data in a meta-analysis | ☐ Yes |
| | ☐ No |

- ☐ AND they used an appropriate weighted technique to combine study results, adjusting for heterogeneity if present
- ☐ AND they statistically combined effect estimates from NRSI that were adjusted for confounding, rather than combining raw data, or justified combining raw data when adjusted effect estimates were not available
- ☐ AND they reported separate summary estimates for RCTs and NRSI separately when both were included in the review
- ☒ No meta-analysis conducted
-

12. If meta-analysis was performed, did the review authors assess the potential impact of RoB in individual studies on the results of the meta-analysis or other evidence synthesis?

For Yes:

- ☐ included only low risk of bias RCTs
- ☐ OR, if the pooled estimate was based on RCTs and/or NRSI at variable RoB, the authors performed analyses to investigate possible impact of RoB on summary estimates of effect.
- ☐ Yes
- ☐ No
- ☒ No meta-analysis conducted
-

13. Did the review authors account for RoB in individual studies when interpreting/discussing the results of the review?

For Yes:

- ☐ included only low risk of bias RCTs
- ☒ OR, if RCTs with moderate or high RoB, or NRSI were included the review provided a discussion of the likely impact of RoB on the results
- ☒ Yes
- ☐ No
-

14. Did the review authors provide a satisfactory explanation for, and discussion of, any heterogeneity observed in the results of the review?

For Yes:

- ☐ There was no significant heterogeneity in the results
- ☒ OR if heterogeneity was present the authors performed an investigation of sources of any heterogeneity in the results and discussed the impact of this on the results of the review
- ☒ Yes
- ☐ No
-

15. If they performed quantitative synthesis did the review authors carry out an adequate investigation of publication bias (small study bias) and discuss its likely impact on the results of the review?

For Yes:

☐ performed graphical or statistical tests for publication bias and discussed the likelihood and magnitude of impact of publication bias

16. Did the review authors report any potential sources of conflict of interest, including any funding they received for conducting the review?

For Yes:

☐ The authors reported no competing interests OR	☒ Yes
☒ The authors described their funding sources and how they managed potential conflicts	☐ No of interest

To cite this tool: Shea BJ, Reeves BC, Wells G, Thuku M, Hamel C, Moran J, Moher D, Tugwell P, Welch V, Kristjansson E, Henry DA. AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both. BMJ. 2017 Sep 21;358:j4008.