

Table S1: Search strategy for PubMed

1	#1	Search: Quality of Life[Mesh] OR quality of life[tiab] OR life qualit*[tiab] OR living qualit*[tiab] OR quality of living[tiab] OR Activities of Daily Living[Mesh] OR activities of daily living[tiab] OR activity of daily living[tiab] OR activities of daily life[tiab] OR activity of daily life[tiab] OR daily living activit*[tiab] OR daily life activit*[tiab] OR adl[tiab] OR chronic limitation of activity[tiab] OR self care*[tiab] OR Health Status[Mesh] OR health status[tiab] OR level of health[tiab] OR health level*[tiab] OR qol[tiab] OR hrql[tiab] OR hrqol[tiab]
2	#2	Search: food hypersensitivity[Mesh] OR food intolerance[Mesh] OR food allerg*[tw] OR food hypersensitivit*[tw] OR food intolerance*[tw] OR food sensitivit*[tw]
3	#3	Search: (HR-PRO[tiab] OR HRPRO[tiab] OR HRQL[tiab] OR HRQoL[tiab] OR QL[tiab] OR QoL[tiab] OR quality of life[tw] OR life quality[tw] OR health index*[tiab] OR health indices[tiab] OR health profile*[tiab] OR health status[tw] OR ((patient[tiab] OR self[tiab] OR child[tiab] OR parent[tiab] OR carer[tiab] OR proxy[tiab]) AND ((report[tiab] OR reported[tiab] OR reporting[tiab]) OR (rated[tiab] OR rating[tiab] OR ratings[tiab]) OR based[tiab] OR (assessed[tiab] OR assessment[tiab] OR assessments[tiab]))) OR ((disability[tiab] OR function[tiab] OR functional[tiab] OR functions[tiab] OR subjective[tiab] OR utility[tiab] OR utilities[tiab] OR wellbeing[tiab] OR well being[tiab]) AND (index[tiab] OR indices[tiab] OR instrument[tiab] OR instruments[tiab] OR measure[tiab] OR measures[tiab] OR questionnaire[tiab] OR questionnaires[tiab] OR profile[tiab] OR profiles[tiab] OR scale[tiab] OR scales[tiab] OR score[tiab] OR scores[tiab] OR status[tiab] OR survey[tiab] OR surveys[tiab])))
4	#4	Search: (instrumentation[sh] OR methods[sh] OR Validation Studies[pt] OR Comparative Study[pt] OR psychometrics[Mesh] OR psychometr*[tiab] OR clinimetr*[tw] OR clinometr*[tw] OR outcome assessment, health care[Mesh] OR outcome assessment[tiab] OR outcome measure*[tw] OR observer variation[Mesh] OR observer variation[tiab] OR Health Status Indicators[Mesh] OR reproducibility of results[Mesh] OR reproducib*[tiab] OR discriminant analysis[Mesh] OR reliab*[tiab] OR unreliab*[tiab] OR valid*[tiab] OR coefficient of variation[tiab] OR coefficient[tiab] OR homogeneity[tiab] OR homogeneous[tiab] OR internal consistency[tiab] OR (cronbach*[tiab] AND (alpha[tiab] OR alphas[tiab])) OR (item[tiab] AND (correlation*[tiab] OR selection*[tiab] OR reduction*[tiab])) OR agreement[tw] OR precision[tw] OR imprecision[tw] OR precise values[tw] OR test-retest[tiab] OR (test[tiab] AND retest[tiab]) OR (reliab*[tiab] AND (test[tiab] OR retest[tiab])) OR stability[tiab] OR interrater[tiab] OR inter-rater[tiab] OR intrarater[tiab] OR intra-rater[tiab] OR intertester[tiab] OR inter-tester[tiab] OR intratester[tiab] OR intra-tester[tiab] OR interobserver[tiab] OR inter-observer[tiab] OR intraobserver[tiab] OR intra-observer[tiab] OR

## Reference:

1. Vissers T, Vries RD. Quality of life (QoL) search block Amsterdam: Afdeling Biomedische Informatiespecialisten; 2020 [updated March 23, 2020; cited 2021 May 5]. Available from: <https://blocks.bmi-online.nl/catalog/294> accessed May 5 2021.
2. Mackintosh A, Comabella CCI, Hadi M, et al. PROM GROUP CONSTRUCT & INSTRUMENT TYPE FILTERS Oxford: University of Oxford; 2010 [updated February, 2010; cited 2021 May 5]. Available from: <https://cosmin.nl/wp-content/uploads/prom-search-filter-oxford-2010.pdf> accessed May 5 2021.
3. Terwee CB, Jansma EP, Riphagen II, et al. Development of a Methodological PubMed Search Filter for Finding Studies on Measurement Properties of Measurement Instruments. *Quality of Life Research* 2009;18(8):1115-23. doi: 10.1007/s11136-009-9528-5

		<p>intertechnician[tiab] OR inter-technician[tiab] OR intratechnician[tiab] OR intra-technician[tiab] OR interexaminer[tiab] OR inter-examiner[tiab] OR intraexaminer[tiab] OR intra-examiner[tiab] OR interassay[tiab] OR inter-assay[tiab] OR intraassay[tiab] OR intra-assay[tiab] OR interindividual[tiab] OR inter-individual[tiab] OR intraindividual[tiab] OR intra-individual[tiab] OR interparticipant[tiab] OR inter-participant[tiab] OR intraparticipant[tiab] OR intra-participant[tiab] OR kappa[tiab] OR kappa's[tiab] OR kappas[tiab] OR repeatab*[tw] OR ((replicab*[tw] OR repeated[tw]) AND (measure[tw] OR measures[tw] OR findings[tw] OR result[tw] OR results[tw] OR test[tw] OR tests[tw])) OR generaliza*[tiab] OR generalisa*[tiab] OR concordance[tiab] OR (intraclass[tiab] AND correlation*[tiab]) OR discriminative[tiab] OR known group[tiab] OR factor analysis[tiab] OR factor analyses[tiab] OR factor structure[tiab] OR factor structures[tiab] OR dimension*[tiab] OR subscale*[tiab] OR (multitrait[tiab] AND scaling[tiab] AND (analysis[tiab] OR analyses[tiab])) OR item discriminant[tiab] OR interscale correlation*[tiab] OR error[tiab] OR errors[tiab] OR individual variability[tiab] OR interval variability[tiab] OR rate variability[tiab] OR (variability[tiab] AND (analysis[tiab] OR values[tiab])) OR (uncertainty[tiab] AND (measurement[tiab] OR measuring[tiab])) OR standard error of measurement[tiab] OR sensitiv*[tiab] OR responsive*[tiab] OR (limit[tiab] AND detection[tiab]) OR minimal detectable concentration[tiab] OR interpretab*[tiab] OR ((minimal[tiab] OR minimally[tiab] OR clinical[tiab] OR clinically[tiab]) AND (important[tiab] OR significant[tiab] OR detectable[tiab]) AND (change[tiab] OR difference[tiab])) OR (small*[tiab] AND (real[tiab] OR detectable[tiab]) AND (change[tiab] OR difference[tiab])) OR meaningful change[tiab] OR ceiling effect[tiab] OR floor effect[tiab] OR Item response model[tiab] OR IRT[tiab] OR Rasch[tiab] OR Differential item functioning[tiab] OR DIF[tiab] OR computer adaptive testing[tiab] OR item bank[tiab] OR cross-cultural equivalence[tiab])</p>
5	#5	<p>Search: (addresses[pt] OR biography[pt] OR case reports[pt] OR comment[pt] OR directory[pt] OR editorial[pt] OR festschrift[pt] OR interview[pt] OR lectures[pt] OR legal cases[pt] OR legislation[pt] OR letter[pt] OR news[pt] OR newspaper article[pt] OR patient education handout[pt] OR popular works[pt] OR congresses[pt] OR consensus development conference[pt] OR consensus development conference, nih[pt] OR practice guideline[pt]) NOT (animals[Mesh] NOT humans[Mesh])</p>
6	#6	#1 AND #2 AND #3 AND #4 NOT #5

## Note:

#1: The search blocks of quality of life for medical and health bibliographic databases compiled by Dutch medical information specialists is accessible from <https://blocks.bmi-online.nl/catalog/294>

#3: The search filter for finding PROMs developed by the University of Oxford is accessible from <https://cosmin.nl/wp-content/uploads/prom-search-filter-oxford-2010.pdf>

#4 and #5: The sensitive PubMed search filter for measurement properties developed by Terwee et al., and corresponding translated search filters for other databases are accessible from <https://www.cosmin.nl/tools/pubmed-search-filters/?portfolioCats=14>

## Reference:

1. Vissers T, Vries RD. Quality of life (QoL) search block Amsterdam: Afdeling Biomedische Informatiespecialisten; 2020 [updated March 23, 2020; cited 2021 May 5]. Available from: <https://blocks.bmi-online.nl/catalog/294> accessed May 5 2021.
2. Mackintosh A, Comabella CCI, Hadi M, et al. PROM GROUP CONSTRUCT & INSTRUMENT TYPE FILTERS Oxford: University of Oxford; 2010 [updated February, 2010; cited 2021 May 5]. Available from: <https://cosmin.nl/wp-content/uploads/prom-search-filter-oxford-2010.pdf> accessed May 5 2021.
3. Terwee CB, Jansma EP, Riphagen II, et al. Development of a Methodological PubMed Search Filter for Finding Studies on Measurement Properties of Measurement Instruments. *Quality of Life Research* 2009;18(8):1115-23. doi: 10.1007/s11136-009-9528-5

**Table S2. Characteristics of the included PROMs<sup>1</sup>**

PROM <sup>1</sup>	Developer(s)/ year developed	Construct(s)	Target population	Mode of administration	Recall period	(Sub)scale (s) (number of items)	Response options	Range of scores/scoring	Original language	Available translations
A										
B										
.....										

Note: 1. PROM(s) = Patient-reported outcome measure(s). In this study, PROM(s) refers to the disease-specific HRQL instrument(s) for patients with food allergy or/and food intolerance and their caregivers.

**Table S3. Characteristics of the included study populations**

PROM <sup>1</sup>	Reference	Population			Disease characteristics			Instrument administration			Response rate
		N	Age Mean (SD, range) year	Gender % female	Disease	Disease duration mean (SD) year	Disease severity	Setting	Country	Language	
A	1										
	2										
	3										
.....											
B	1										
	.....										

Note: 1. PROM(s) = Patient-reported outcome measure(s). In this study, PROM(s) refers to the disease-specific HRQL instrument(s) for patients with food allergy or/and food intolerance and their caregivers.

## References:

- Mokkink LB, Prinsen CAC, Patrick DL, et al. COSMIN methodology for systematic reviews of Patient-Reported Outcome Measures (PROMs) - user manual Netherlands: COSMIN; 2018 [updated February 2018; cited 2021 May 5]. Available from: [https://cosmin.nl/wp-content/uploads/COSMIN-syst-review-for-PROMs-manual\\_version-1\\_feb-2018.pdf](https://cosmin.nl/wp-content/uploads/COSMIN-syst-review-for-PROMs-manual_version-1_feb-2018.pdf) accessed May 5 2021.
- Prinsen CA, Mokkink LB, Bouter LM, et al. COSMIN guideline for systematic reviews of patient-reported outcome measures. *Quality of Life Research* 2018;27(5):1147-57. doi: 10.1007/s11136-018-1798-3

Table S4. Rating<sup>1</sup> of the PROMs<sup>2</sup> development

PROM <sup>2</sup>	PROM design						Cognitive interview (CI) study <sup>4</sup>				TOTAL PROM DEVELOPMENT	Reference	
	General design requirements					Concept elicitation <sup>3</sup>	Total PROM design	General design requirements	Comprehensibility	Comprehensiveness			Total CI study
	Clear construct	Clear origin of construct	Clear target population for which the PROM was developed	Clear context of use	PROM developed in sample representing the target population			CI study performed in sample representing the target population					
A													
B													
.....													

Note: 1. Ratings (filled in cells): V = very good, A = adequate, D = doubtful, I = inadequate.

2. PROM(s) = Patient-reported outcome measure(s). In this study, PROM(s) refers to the disease-specific HRQL instrument(s) for patients with food allergy or/and food intolerance and their caregivers.

3. The concept elicitation will not be further rated if the PROM(s) was not developed in the sample representing the target population;

4. Empty cells indicate that a CI study (or part of it) was not performed.

#### References:

1. Terwee CB, Prinsen CAC, Chiarotto A, et al. COSMIN methodology for evaluating the content validity of patient-reported outcome measures: a Delphi study. *Qual Life Res* 2018;27(5):1159-70. doi: 10.1007/s11136-018-1829-0
2. Terwee CB, Prinsen CA, Chiarotto A, et al. COSMIN methodology for assessing the content validity of PROMs - User manual Amsterdam, The Netherlands: COSMIN; 2018 [updated February 2018; cited 2021 April 27]. Available from: <https://cosmin.nl/wp-content/uploads/COSMIN-methodology-for-content-validity-user-manual-v1.pdf> accessed April 27 2021.



Table S5-1. Rating of the content validity of PROMs<sup>1</sup>

PROM (Reference – study type/Rating of reviewers)	Content Validity													CONTENT VALIDITY RATING <sup>3</sup>
	Relevance <sup>2</sup>					Comprehensiveness <sup>2</sup>		Comprehensibility <sup>2</sup>						
	1. Are the included items relevant for the construct of interest?	2. Are the included items relevant for the target population of interest? <sup>4</sup>	3. Are the included items relevant for the context of use of interest? <sup>4</sup>	4. Are the response options appropriate?	5. Is the recall period appropriate?	RELEVANCE RATING <sup>3</sup>	6. Are all key concepts included?	COMPREHENSIVENESS RATING <sup>3</sup>	7. Are the PROM instructions understood by the population of interest as intended?	8. Are the PROM items and response options understood by the population of interest as intended?	9. Are the PROM items appropriately worded?	10. Do the response options match the question?	COMPREHENSIBILITY RATING <sup>3</sup>	
A (Ref 1- PROM development study)														
A (Ref 2 - Content validity study)														
A (Ref 3 - Content validity study)														
Rating of reviewers														
B (Ref 1- PROM development study)														
B (Ref 2 - Content validity study)														
Rating of reviewers														
.....														

Note: 1. PROM(s) = Patient-reported outcome measure(s). In this study, PROM(s) refers to the disease-specific HRQL instrument(s) for patients with food allergy or/and food intolerance and their caregivers.

2. Ratings (filled in white cells) for the 10 criteria for relevance, comprehensiveness, comprehensibility can be + / - /± / ? : ‘ + ’= sufficient, ‘ - ’= insufficient, ‘ ± ’= inconsistent, ‘ ? ’=indeterminate.

3. The RELEVANCE, COMPREHENSIVENESS, COMPREHENSIBILITY, AND CONTENT VALIDITY ratings (filled in gray cells) can be + / - /± / ? : ‘ + ’= sufficient, ‘ - ’= insufficient, ‘ ± ’= inconsistent, ‘ ? ’=indeterminate.

## References:

1. Terwee CB, Prinsen CAC, Chiarotto A, et al. COSMIN methodology for evaluating the content validity of patient-reported outcome measures: a Delphi study. *Qual Life Res* 2018;27(5):1159-70. doi: 10.1007/s11136-018-1829-0
2. Terwee CB, Prinsen CA, Chiarotto A, et al. COSMIN methodology for assessing the content validity of PROMs - User manual Amsterdam, The Netherlands: COSMIN; 2018 [updated February 2018; cited 2021 April 27]. Available from: <https://cosmin.nl/wp-content/uploads/COSMIN-methodology-for-content-validity-user-manual-v1.pdf> accessed April 27 2021.

**Table S6. Quality of the PROMs<sup>1</sup> and quality of the evidence for measurement properties of the PROMs<sup>1</sup> (Summary of findings)**

Measurement properties	PROM <sup>1</sup> A			PROM <sup>1</sup> B			.....		
	Summary or pooled results	Overall rating <sup>2,3</sup>	Quality of evidence <sup>4</sup>	Summary or pooled results	Overall rating <sup>2,3</sup>	Quality of evidence <sup>4</sup>	Summary or pooled results	Overall rating <sup>2,3</sup>	Quality of evidence <sup>4</sup>
<b>Content validity<sup>2</sup></b>									
<i>Relevance<sup>2</sup></i>									
<i>Comprehensiveness<sup>2</sup></i>									
<i>Comprehensibility<sup>2</sup></i>									
<b>Structural validity<sup>3</sup></b>									
<b>Internal consistency<sup>3</sup></b>									
<b>Cross-cultural validity /measurement invariance<sup>3</sup></b>									
<b>Reliability<sup>3</sup></b>									
<b>Measurement error<sup>3</sup></b>									
<b>Criterion validity<sup>3</sup></b>									
<b>Construct validity<sup>3</sup></b>									
<b>Responsiveness<sup>3</sup></b>									

Note: Empty cells indicate that the information is not provided by included studies.

1. PROM(s) = Patient-reported outcome measure(s). In this study, PROM(s) refers to the disease-specific HRQL instrument(s) for patients with food allergy or/and food intolerance and their caregivers.

2. Overall ratings (filled in gray cells) for the content validity (relevance, comprehensiveness, comprehensibility) can only be + / - /±: ‘+’= sufficient, ‘-’= insufficient, ‘±’= inconsistent.

3. Overall ratings (filled in white cells) for other measurement properties can be + / - /±/ ? : ‘+’= sufficient, ‘-’= insufficient, ‘±’ = inconsistent, ‘?’ =indeterminate.

4. Ratings for quality of evidence: High, Moderate, Low, Very low.

#### References:

1. Mokkink LB, Prinsen CAC, Patrick DL, et al. COSMIN methodology for systematic reviews of Patient-Reported Outcome Measures (PROMs) - user manual Netherlands: COSMIN; 2018 [updated February 2018; cited 2021 May 5]. Available from: [https://cosmin.nl/wp-content/uploads/COSMIN-syst-review-for-PROMs-manual\\_version-1\\_feb-2018.pdf](https://cosmin.nl/wp-content/uploads/COSMIN-syst-review-for-PROMs-manual_version-1_feb-2018.pdf) accessed May 5 2021.
2. Terwee CB, Prinsen CA, Chiarotto A, et al. COSMIN methodology for assessing the content validity of PROMs - User manual Amsterdam, The Netherlands: COSMIN; 2018 [updated February 2018; cited 2021 April 27]. Available from: <https://cosmin.nl/wp-content/uploads/COSMIN-methodology-for-content-validity-user-manual-v1.pdf> accessed April 27 2021.

**Table S7. Information on interpretability of the PROMs<sup>1</sup>**

<b>PROM (Reference)</b>	<b>Distribution of the instruments scores in the study population</b>	<b>Percentage of missing items and percentage of missing total scores</b>	<b>Floor and ceiling effects</b>	<b>Scores and change scores available for relevant (sub)groups</b>	<b>Minimal important change (MIC) or minimal important difference (MID)</b>	<b>Information on response shift</b>
A (Ref 1)						
A (Ref 2)						
A (Ref 3)						
.....						
B (Ref 1)						
.....						

Note: 1. PROM(s) = Patient-reported outcome measure(s). In this study, PROM(s) refers to the disease-specific HRQL instrument(s) for patients with food allergy or/and food intolerance and their caregivers.

## References:

1. Mokkink LB, Prinsen CAC, Patrick DL, et al. COSMIN methodology for systematic reviews of Patient-Reported Outcome Measures (PROMs) - user manual Netherlands: COSMIN; 2018 [updated February 2018; cited 2021 May 5]. Available from: [https://cosmin.nl/wp-content/uploads/COSMIN-syst-review-for-PROMs-manual\\_version-1\\_feb-2018.pdf](https://cosmin.nl/wp-content/uploads/COSMIN-syst-review-for-PROMs-manual_version-1_feb-2018.pdf) accessed May 5 2021.



**Table S8. Information on feasibility of the PROMs<sup>1</sup>**

Feasibility aspects	PROM A	PROM B	.....
Patient's comprehensibility			
Clinician's comprehensibility			
Type and ease of administration			
Length of the instrument			
Completion time			
Patient's required mental and physical ability level			
Ease of standardization			
Ease of score calculation			
Copyright			
Cost of an instrument			
Required equipment			
Availability in different settings			
Regulatory agency's requirement for approval			

Note: 1. PROM(s) = Patient-reported outcome measure(s). In this study, PROM(s) refers to the disease-specific HRQL instrument(s) for patients with food allergy or/and food intolerance and their caregivers.

## References:

1. Morkink LB, Prinsen CAC, Patrick DL, et al. COSMIN methodology for systematic reviews of Patient-Reported Outcome Measures (PROMs) - user manual Netherlands: COSMIN; 2018 [updated February 2018; cited 2021 May 5]. Available from: [https://cosmin.nl/wp-content/uploads/COSMIN-syst-review-for-PROMs-manual\\_version-1\\_feb-2018.pdf](https://cosmin.nl/wp-content/uploads/COSMIN-syst-review-for-PROMs-manual_version-1_feb-2018.pdf) accessed May 5 2021.