#### Supplemental materials for

Claessens D, Boudewijns E, Keijsers LC, Gidding-Slok AH, Winkens B, van Schayck OC. Validity and reliability of the assessment of burden of chronic conditions scale in the Netherlands. *Ann Fam Med.* 2023;21(2):103-111.

#### Supplemental Appendix 1. Assessment of Burden of Chronic Conditions (ABCC-) scale

Supplemental Appendix 1: the Assessment of Burden of Chronic Conditions (ABCC-) scale. The scale is built with the set of generic questions, a set of lifestyle questions and one or more sets of disease-specific questions. These sets of questions are combined for the participant, who only sees one questionnaire that is adapted to his/her condition. The scale is developed and tested in Dutch language. The presented translation is intended to support the manuscript, but not to be used in research or practice prior to linguistic validation, nor is it validated for English-speaking patients. Moreover, the ABCC-scale should always be used together with the visualization and treatment advice as present in the ABCC-tool.

## Generic questionnaire

#### Dear Sir/Madam,

With this questionnaire, we would like to get an impression of how you are doing. During consultation with your healthcare provider, you can talk about the topics that are important to you.

These questions are related to the chronic condition(s) for which you are visiting the healthcare provider.

	In the past <u>week</u> , how often	0 Never	1 Hardly ever	2 A few times	3 Several times	4 Many times	5 A great many times	6 Almost all the time
G1	did you suffer from <b>fatigue</b> ?							
G2	did you have a poor <b>night's rest</b> ?							
G3	did you suffer from sadness, fear, frustration, shame or other <b>unpleasant feelings?</b>							
G4	did you experience taking <b>medication</b> (e.g. tablets, puffs, insulin) as a burden?							
	In the past week, to what extent	0 Not at all	1 Very slightly	2 Slightly	3 Modera tly	4 Very	5 Extrem ely	6 Totally
G5	were you limited in <b>strenuous physical activities</b> (such as climbing stairs, hurrying, doing sports)?							
G6	were you limited in <b>moderate physical activities</b> (such as walking, housework, carrying things)?							
<b>G7</b>	were you limited in daily activities at home							

G8	were you limited in your <b>work or social activities</b> (short trip, visiting friends and family)?										
G9	did you worry about your future?										
G10	did you have any difficulty with <b>intimacy</b> or sexuality?										
See below for additional questions per condition											
Aller I e Copp											
Additional questions for COPD											
		0	1	2	3	4	5	6			
	In the past week, how often	Never	Hardly ever	A few times	Several times	Many times	A great many times	Almost all the time			
C11	did you feel short of breath while at rest?										
C12	did you feel short of breath while <b>doing physical activities</b> ?										
C13	did you feel <b>concerned</b> about getting a cold or your breathing getting worse?										
C14	did you <b>cough</b> ?										
C15	did you <b>produce sputum or phlegm (chest mucus)</b> ?										
C16	In the past 12 months, how many prednisone and/or antibiotic treatments have you had for your lung disease?	*									
$\boldsymbol{A}$	dditional questions for asthma										
		0	1	2	3	4	5	6			
	In the past week, to what extent	Not at all	Very slightly	Slightly	Modera tly	Very	Extrem ely	Totally			
A11	did you suffer from asthma complaints in the <b>morning</b> ?										
		0	1	2	3	4	5	6			
	In the past week, how often	Never	Hardly ever	A few times	Several times	Many times	A great many times	Almost all the time			
A12	did you wake up during the night because of your asthma complaints?										
A13	did you feel <b>short of breath</b> due to your asthma?										
A14	did you feel <b>concerned</b> about getting a cold or your breathing getting worse?										
A15	did you suffer from a <b>blocked nose</b> , <b>itchy</b>										

 ${\bf nose, sneezing, or \ a \ runny \ nose?}$ 

A16	How many <b>puffs/inhalations</b> have you used in addition to your regular asthma medication in the past week?	□ None □ 1-2 puffs/inhalations □ 3-6 puffs/inhalations □ 7 or more puffs/inhalations						
A	dditional questions for type 2 Diabetes	Mellitus	S					
	In the past <u>month</u> , how often	0 Never	1 Hardly ever	2 A few times	3 Several times	4 Many times	5 A great many times	6 Almost all the time
D11	did you suffer from complaints that could be associated with a low blood sugar level ( <b>hypo</b> ) (e.g. dizziness, shaking, blurred vision, excessive sweating)?							
D12	did you worry about your <b>blood sugar</b> levels?							
D13	did you suffer from tingling or a numb feeling or a burning feeling or pain in the lower legs or feet?							
D14	did you experience difficulty managing your <b>eating and drinking</b> because of your diabetes?							
L	ifestyle-related questions							
	The following qu	estions re	elate to you	ır lifestyl	e			
	In the past week, how many days have you had moderately intense <b>physical exercise</b> for 30 minutes or more?  E.g. walking or cycling in a fast pace It may also be a minimum of 3x10 minutes	□ 0 days □ 1-2 days □ 3-4 days □ 5 days or more						
	How many glasses of <b>alcohol</b> did you drink in the past week?	glass	es per weel	ζ				
	Do you <b>smoke</b> or have you smoked?	☐ Yes. In the last week, how many (shag)cigarettes have you smoked on average per day? ☐ Previously. Stopped smoking since: (month) / (year) ☐ Never						
	What is your weight?		_					
	What is your height?	•••••						
I	s there anything else you would like to <b>discuss</b>	or would l	like to recei	ve more	informatio	<b>n</b> about?		

### **Supplemental Appendix 2: Dutch version of the ABCC-scale**

Supplemental Appendix 2: the Dutch version of the Assessment of Burden of Chronic Conditions (ABCC-) scale. The scale is built with the set of generic questions (translated: "algemene vragen"), a set of lifestyle questions (translated: "leefstijl-gerelateerde vragen") and one or more sets of disease-specific questions (translated: "aanvullende vragen voor COPD/astma/type 2 diabetes mellitus"). These sets of questions are combined for the participant, who only sees one questionnaire that is adapted to his/her condition. The scale is developed and tested in Dutch language only. The ABCC-scale should always be used together with the visualization and treatment advice as present in the ABCC-tool.

### Algemene vragenlijst

Beste meneer/mevrouw,

Met deze vragenlijst willen we samen met u in kaart brengen hoe het met u gaat. Tijdens uw afspraak kunt u met uw zorgverlener praten over de onderwerpen die voor u belangrijk zijn.

Deze vragen hebben te maken met de chronische aandoening(en) waarvoor u bij de zorgverlener komt.

G1 G2 G3	In de afgelopen week, hoe vaak  had u last van vermoeidheid? had u een slechte nachtrust? had u last van somberheid, angst, frustratie, schaamte of andere vervelende gevoelens? ervaarde u het nemen van medicijnen (bijv.	Nooit	Zelden	2 Af en toe	Regelmatig	4 Heel vaak	5 Meest- al	6 Altijd
	tabletten, pufjes, insulinespuiten) als een last?	0	1	2	3	4	5	6
	In de afgelopen <u>week</u> , in welke mate	Helem -aal niet	Heel weinig	Een beetje	Tame- lijk	Erg	Heel erg	Volle- dig
G5	voelde u zich beperkt in <b>zware lichamelijke activiteiten</b> (trap lopen, haasten, sporten)?							
G6	voelde u zich beperkt in <b>matige lichamelijke activiteiten</b> (wandelen, huishoudelijk werk, boodschappen doen)?							
G7	voelde u zich beperkt in <b>dagelijkse</b> activiteiten (u zelf aankleden, wassen)?							
G8	voelde u zich beperkt in uw werk en/of sociale activiteiten (uitjes, vrienden en familie bezoeken)?							
G9 G10	maakte u zich <b>zorgen over uw toekomst</b> ? had u moeite met <b>intimiteit en seksualiteit</b> ?							

Zie volgende pagina voor de aanvullende vragen per aandoening

# Aanvullende vragen voor COPD

	In de afgelopen <u>week</u> , hoe vaak	0 Nooit	1 Zelden	2 Af en toe	3 Regel- matig	4 Heel vaak	5 Meest al	6 Altijd
C11	voelde u zich kortademig in rust?							
C12	voelde u zich kortademig <b>gedurende</b> lichamelijke inspanning?							
C13	voelde u zich <b>angstig/bezorgd</b> voor de volgende benauwdheidsaanval?							
C14	heeft u <b>gehoest</b> ?							
C15	heeft u slijm opgehoest?							
C16	In de afgelopen <b>12 maanden</b> , hoeveel <b>prednison- en/of antibioticakuren</b> heeft u voor uw longaandoening gehad?	□ 1 pred □ 2 pred □ 3 pred	nison- en/c nison- en/c nison- en/c nison- en/c neer prednis	of antibiot of antibiot of antibiot	icakuur icakuren	kuren		

# Aanvullende vragen voor astma

	In de afgelopen <u>week</u> , in welke mate	0 Helem -aal niet	1 Heel weinig	2 Een beetje	3 Tame- lijk	4 Erg	5 Heel erg	6 Volle -dig
A11	had u last van astmaklachten in de <b>ochtend</b> ?							

	In de afgelopen <u>week</u> , hoe vaak	0 Nooit	1 Zelden	2 Af en toe	3 Regel matig	4 Heel vaak	5 Meest al	6 Altijd
A12	werd u 's nachts <b>wakker</b> door uw astmaklachten?							
A13	had u last van <b>kortademigheid</b> door uw astma?							
A14	voelde u zich <b>angstig/bezorgd</b> voor de volgende benauwdheidsaanval?							
A15	had u last van een <b>verstopte neus, jeuk aan</b> de neus, niezen, of een loopneus?							

A16	Hoeveel pufjes/inhalaties heeft u in de	□ Geen
	afgelopen week extra gebruikt naast uw	☐ 1-2 pufjes/inhalaties
	normale astmamedicatie?	□ 3-6 pufjes/inhalaties
		□ 7 of meer pufjes/inhalaties

# Aanvullende vragen voor type 2 diabetes mellitus

	In de afgelopen <u>maand</u> , hoe vaak	0 Nooit	1 Zelden	2 Af en toe	3 Regel matig	4 Heel vaak	5 Meestal	6 Altijd
D11	had u last van klachten die kunnen passen bij een te lage bloedsuikerwaarde ( <b>hypo</b> ) (bijv. duizeligheid, trillen, plots slechter zien, overmatig zweten)?							
D12	maakte u zich <b>ongerust</b> over uw <b>bloedsuikerwaarden</b> ?							
D13	had u last van tintelingen of een doof gevoel of brandend gevoel of pijn in de <b>onderbenen of voeten</b> ?							
D14	vond u het lastig om op uw <b>eten en drinken</b> te letten vanwege uw diabetes?							

# Leefstijl-gerelateerde vragen

30 minuten of meer matig intensieve □ 1-2 da lichaamsbeweging gehad? □ 3-4 da	
0 00	nen
- 1	gen
□ 5 dage	en of meer
Bijv. stevig doorwandelen of harder fietsen.	
Het mogen ook minimaal 3x10 minuten zijn.	
Hoeveel glazen <b>alcohol</b> dronk u in de glaze	en per week
afgelopen week?	
<b>Rookt</b> u of heeft u gerookt? □ Ja. Ho	eveel (shag)sigaretten heeft u in de afgelopen week
gemidde	ld per dag gerookt?
□ Vroeg	er. Gestopt met roken sinds:(maand) /(jaar)
□ Nooit	
Wat is uw <b>gewicht</b> ?	kg
Wat is uw lengte?	cm

### Supplemental Appendix 3: Additional information with regard to the methods

## Study design justification

The ABCC-tool is developed to meet clinical experts' needs of a brief and concise tool to use in clinical practice. The tool's goal is to highlight the various aspects that infer burden of disease, and is not designed to deliver detailed information about each symptom or aspect of burden of disease. The healthcare provider and patient choose one or several aspects to discuss, and subsequently elaborate on that or those aspect(s) during the conversation. As such, the questionnaire consists of a minimum number of items, resulting in several single-item domains (i.e. constructs of burden of disease, such as fatigue). All items are considered clinically relevant by participating experts in the expert panel, making it undesirable to use statistical methods to drop or restructure items<sup>5</sup>.

## Sample size justification

Based on the sample size we calculated the effect sizes that could be detected with 80% power and a two-sided significance level  $\alpha$  of 0.05 in order to reflect on the adequacy of the sample size. PASS (2019; v19.0.9) was used for all calculations.

As for construct validity, concerning Pearson's correlations between the ABCC-scale and commonly-used QoL measures, a correlation as small as 0.345 would already yield the required power to detect a significant association. With regard to the differentiation of known groups the outcome parameter was a standardized difference in means between two groups based on a single characteristic. For the purpose of sample size calculations the validation study of the ABCC-scale predecessor was most comparable to our study design<sup>36</sup>. As this scale was developed for people with COPD only, our sample size calculation was based on the differentiation of patient groups

based on their exacerbation count over a year, with regard to COPD symptoms (named pulmonary complaints in the current ABCC-tool). Assuming the same group sizes  $(n_1 = n_2)$ , a standardized effect size (Cohen's d) of 0.74 can be detected with sufficient power based on the independent-samples t-test. This is in line with the standardized effect size of 0.72 obtained from the predecessor's validation study<sup>36</sup>, when the presented median and interquartile range were transformed into a mean and standard deviation according to the methods of Wan et. al  $(2014)^{45}$ . The internal consistency was evaluated using the Cronbach's alpha for the total score and its multiitem domains. As smaller number of items lead to higher required sample sizes, k is set to 3. A Cronbach's alpha of 0.466 or larger can be detected under the aforementioned assumptions. The test-retest reliability was estimated by the intra-class coefficient (ICC), where ICCs of 0.31 or larger yield at least 80% power.

#### Questionnaires used in the validation study

#### ABCC-scale

The ABCC-scale is a multicomponent questionnaire in the Dutch language<sup>5</sup>. A non-linguistic translation of the questionnaire is presented in Supplemental Appendix 1, while the Dutch version is presented in Supplemental Appendix 2. It consists of a generic core set of questions that might be relevant to anyone with the aforementioned chronic conditions (i.e. either COPD, asthma or T2DM), and additional disease-specific questions that are added for these conditions (Supplemental Appendix file 1). The generic part consists of ten items that are represented in seven domains: physical limitations (3 items), fatigue (1 item), night's rest (1 item), feelings/emotions (2 items), sexuality (1 item), relations and work (1 item), and medicines (1 item). For someone with COPD, six additional items are represented in two additional domains (pulmonary complaints

(4 item) and lung attacks (exacerbations; 1 item)) and in one existing domain (feelings/emotions (1 item)). For someone with asthma, seven additional items are added into three additional domains (asthma complaints (4 items), lung attacks (exacerbations; 1 item), and nasal complaints (1 item)) and one existing domain (feelings/emotions (1 item)). For someone with T2DM, four additional items are added into four additional domains: hypoglycemia (described as hypo; 1 item), worry about blood glucose (1 item), leg- and feet complaints (1 item), and eating and drinking (1 item). The domain lung attacks for people with COPD or asthma regards the frequency of exacerbations in a year, which is not a subjective evaluation of burden. It will therefore not be included in the assessment of validity and reliability. The same applies to the lifestyle questions. At the end of the questionnaire, an open-ended question presents the opportunity to add anything that gives rise to their experience of burden of disease. Due to the open-ended nature of this last question, it will not be taken into account in the analyses. All burden-related items are scored on a 7-point Likert scale from 0 (no burden) to 6 (highest burden). Multi-item domains are scored as the sum of responses divided by the amount of items. The total score is calculated by the sum of domain scores, divided by the number of domains, in which it is assumed that all domains are equally relevant to the total score. One missing value was tolerated for multi-item domains, with exceptions for items C13 and A14 because these items add unique information to the domain based on expert opinion (Supplemental Appendix file 1). A missing item was imputed by the participant's mean score of the other items in that domain except for single-item domains. In that case, that particular domain was excluded from the total score calculation. All ABCC-scales are presented in Supplemental Appendix file 1.

The Dutch version of the SGRQ was used, which is a disease-specific 50-item QoL questionnaire for people with COPD<sup>10</sup>. The SGRQ consists of three subscales: symptoms (8 items), activity (16 items), and impact (26 items). Thirty-nine questions are dichotomous (i.e. yes/no) and 11 items are scored on a 5-point Likert scale. Total and subscale score calculation and handling of missing data were performed according to the scoring manual<sup>46</sup>. The total and subscale scores range from 0 (no impairment) to 100 (worst impairment).

#### **HADS**

The Dutch version of the HADS is a 14-item screening scale for anxiety and depression <sup>13,47,48</sup>. It contains two subscales: anxiety (7 items) and depression (7 items). All items range from 0 (no sign of anxiety/depression) to 3 (clear sign of anxiety/depression). For this study, only the depression subscale was used, which is scored by the sum of the depression items of the scale. One missing value was tolerated, and imputed by the participant's mean of the remaining items. A depression subscale score of eight or higher discriminated between (borderline) depression and no depression<sup>48</sup>.

#### AQLQ-S

The Dutch version of the AQLQ-S is a 32-item disease-specific QoL scale for people with asthma<sup>11</sup>. It contains four subscales: symptoms (12 items), activity limitations (11 items), emotional function (5 items), and environmental stimuli (4 items). All items are scored on a 7-point Likert scale, ranging from 1 (i.e. severe impairment) to 7 (i.e. no impairment). The subscale scores were calculated as the sum of the items divided by the number of items. The total score was calculated as the sum of all items divided by the total number of items. A maximum of three

missing values was tolerated for the total score, and only one missing value was tolerated for the symptoms and activity limitation subscales. Missing values were imputed with the participant's mean of the other items. These calculations are based on the scoring manual that is available upon request from the original author of the AQLQ-S.

#### ADDQoL19

The ADDQoL19 is a 19-item questionnaire measuring disease-specific QoL for people with T2DM<sup>12</sup>. Each of the 19 items is scored based on how a person's QoL would be without T2DM and its importance to that person. The impact of each item is scored from -3 (QoL is much better without T2DM) to +1 (QoL is worse without T2DM), and the importance is scored from 0 (not important at all) to 3 (very important). Both scores are multiplied to create the weighted impact (WI) of that item. The total score is the Average Weighted Impact (AWI), and is calculated by averaging the sum of WIs over the number of items included. Missing values are not tolerated in calculation of the item WIs, and up to six missing items are tolerated for calculation of the AWI. These calculations are based on the scoring manual that is available upon request from the original author of the ADDQoL19.

#### References

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- 4. Bjelland I, Dahl AA, Haug TT, Neckelmann D. The validity of the Hospital Anxiety and Depression Scale. An updated literature review. *J Psychosom Res.* 2002;52(2):69-77. 10.1016/s0022-3999(01)00296-3.

Supplemental Appendix 4: Baseline characteristics – additional characteristics

Supplemental Appendix 4: Baselii	- additional characteristics			
Condition	COPD	Asthma	T2DM	
Total included, n	65	62	60	
Marital status, n (%)				
- Single	4 (6.2)	17 (27.4)	10 (16.7)	
- Married	54 (83.1)	37 (59.7)	38 (63.3)	
- Divorced	5 (7.7)	7 (11.3)	7 (11.7)	
- Widowed	2 (3.1)	1 (1.6)	5 (8.3)	
Paid job				
- Yes	5 (7.7)	20 (32.3)	11 (18.3)	
- No	60 (92.3)	42 (67.7)	49 (81.7)	
Retired				
- Yes	36 (55.4)	14 (22.6)	34 (56.7)	
- No	22 (33.8)	27 (43.5)	15 (25.0)	
- Not applicable	4 (6.2)	19 (30.6)	10 (16.7)	
Treated by, n (%)				
- General practitioner	11 (16.9)	17 (27.4)	48 (80.0)	
- Medical specialist	52 (80.0)	37 (59.7)	10 (16.7)	
Emergency visit exacerbation, previous				
year, n (%)				
- 0	43 (66.2)	55 (88.7)	-	
- 1	13 (20.0)	5 (8.1)	-	
- 2	6 (9.2)	1 (1.6)	-	
- >2	3 (4.6)	1 (1.6)	-	
Hospital admission exacerbation,				
previous year, n (%)				
- 0	48 (73.8)	57 (91.9)	-	
- 1	13 (20.0)	3 (4.8)	-	
- 2	2 (3.1)	1 (1.6)	-	
- >2	2 (3.1)	1 (1.6)	-	
Asthma control (based on GINA <sup>a</sup> (28))				
- Controlled	N/a	12 (19.4)	N/a	
<ul> <li>Partially controlled</li> </ul>	N/a	6 (9.7)	N/a	
- Not controlled	N/a	43 (69.4)	N/a	
Body Mass Index, kg/m <sup>2</sup> , n (%)				
- Underweight (<18.5)	-	-	2 (3.3)	
- Normal weight (18.5-24.9)	-	-	29 (48.3)	
- Overweight (25.0-29.9)	-	-	13 (21.7)	
- Obesity (30.0-39.9)	-	-	14 (23.3)	
- Morbid obesity (≥40)	-	-	2 (3.3)	
Complications, n (%)				
- Nephropathy	-	-	7 (11.7)	
- Neuropathy	-	-	18 (30)	
- Retinopathy	-	-	17 (28.3)	
- Sexual problems	-	-	23 (38.3)	
- Amputation	-	-	0 (0)	
- Diabetic foot / foot ulcers	-	-	5 (8.3)	
	-	-	29 (48.3)	
- Cardiovascular disease	1	1	<u> </u>	

<sup>&</sup>lt;sup>a</sup>Global Initiative for Asthma global strategy for asthma management and prevention, 2021 update (28)

Supplemental Appendix 5. Questionnaire outcomes for each condition

Supplemental Appendix 5. Questionnaire outcomes for each condition				
Questionnaire	T0	T1		
COPD	n=65	n=60		
T1-T0, days, median (IQR)	17 (15.0-20.0)	1		
ABCC scale <sup>a</sup> , median (IQR), range 0-6	24/15/200	24/1420		
- Total	2.4 (1.5-3.0)	2.4 (1.4-2.9)		
- Fatigue	3.0 (2.0-4.5)	3.0 (2.0-4.0)		
- Night's rest	2.0 (1.0-3.0)	2.0 (1.0-3.0)		
- Feelings/emotions	1.3 (0.7-2.3)	1.3 (0.7-2.3)		
- Medicines	0.0 (0.0-1.0)	0.0 (0.0-1.0)		
- Physical limitations	3.0 (2.0-4.3)	3.3 (2.3-4.3)		
- Relations and work	2.0 (1.0-4.0)	2.0 (1.0-3.0)		
- Sexuality	2.0 (0.0-4.0)	2.0 (1.0-4.0)		
- Pulmonary complaints	2.8 (2.0-3.5)	2.8 (2.0-3.8)		
SGRQb, median (IQR), range 0-100				
- Total	53.3 (38.0-64.0)			
- Symptoms	62.2 (38.1-73.3)			
- Activity	21.0 (14.2-40.5)			
- Impact	40.2 (25.4-48.0)			
HADS <sup>c</sup> , median (IQR), range 0-21				
- Total	7.0 (3.5-13.5)			
<ul> <li>Depression subscale</li> </ul>	3.0 (1.0-7.0)			
<ul> <li>Anxiety subscale</li> </ul>	4.0 (2.0-7.0)			
Asthma	n=62	n=50		
T1-T0, days, median (IQR)	17 (16-19)			
ABCC scale, median (IQR), range 0-6				
- Total	2.3 (1.5-2.9)	2.2 (1.5-2.8)		
- Fatigue	3.0 (0.0-6.0)	3.0 (2.0-4.0)		
- Night's rest	3.0 (1.0-5.0)	2.0 (2.0-3.0)		
- Feelings/emotions	1.3 (0.0-3.0)	1.3 (0.6-1.7)		
- Medicines	1.0 (0.0-2.0)	1.0 (0.0-1.0)		
<ul> <li>Physical limitations</li> </ul>	2.2 (1.3-3.0)	2.0 (1.0-2.7)		
<ul> <li>Relations and work</li> </ul>	2.0 (0.0-4.0)	2.0 (1.0-3.0)		
- Sexuality	2.0 (0.0-5.0)	1.0 (0.0-3.0)		
<ul> <li>Asthma complaints</li> </ul>	2.5 (1.2-3.3)	2.5 (1.5-3.4)		
<ul> <li>Nasal complaints</li> </ul>	3.0 (0.0-6.0)	3.0 (2.0-4.0)		
AQLQ-Standardized <sup>d</sup> , median (IQR) , range				
0-7				
- Total	5.2 (4.2-5.9)			
- Symptoms	5.0 (4.1-5.9)			
- Activity limitation	4.9 (3.9-5.8)			
- Emotional function	6.0 (5.2-6.4)			
- Environmental exposure	5.0 (3.9-5.8)			
T2DM	n=60	n=53		
T1-T0, days, median (IQR)	18 (15.5-21.5)			
ABCC scale, median (IQR), range 0-6				
- Total	1.4 (0.9-2.2)	1.3 (0.9-2.2)		
- Fatigue	3.0 (1.0-3.8)	2.0 (2.0-3.0)		
- Night's rest	2.0 (1.0-3.0)	2.0 (1.0-3.0)		
- Feelings/emotions	1.0 (0.5-2.0)	1.0 (0.5-1.5)		
- Medicines	1.0 (0.0-2.0)	1.0 (0.0-2.0)		
- Physical limitations	1.7 (0.7-3.0)	1.3 (0.7-2.7)		
- Relations and work	1.0 (0.0-2.0)	1.0 (0.0-2.0)		
- Sexuality	1.0 (0.0-3.0)	1.0 (0.0-3.0)		
- Hypoglycaemia	1.0 (0.0-2.0)	1.0 (0.0-2.0)		

-	Worry about blood glucose	1.0 (1.0-2.0)	1.0 (1.0-2.0)
-	Leg- and feet complaints	1.0 (0.0-3.8)	1.0 (0.0-3.0)
-	Eating and drinking	2.0 (1.0-3.0)	1.0 (1.0-2.0)
ADDQ	ol <sup>e</sup> , median (IQR), range $-9 - +3$		
-	Average Weighted Impact (AWI)	-0.8 (-1.8 – -0.3)	
-	Leisure	0.0(-2.0-0.0)	
-	Work	0.0 (-2.0 - 0.0)	
-	Journeys	0.0(-2.0-0.0)	
-	Holidays	0.0(-2.0-0.0)	
-	Physical	-1.0 (-2.8 – 0.0)	
-	Family life	0.0(-2.0-0.0)	
-	Friendships and social life	0.0(-2.0-0.0)	
-	Personal relationship	0.0(-2.0-0.0)	
-	Sex life	-1.0 (-3.0 – 0.0)	
-	Physical appearance	0.0(0.0-0.0)	
-	Self-confidence	0.0(0.0-0.0)	
-	Motivation	0.0(-2.0-0.0)	
-	Reactions of other people	0.0(0.0-0.0)	
-	Feelings about the future	-0.5 (-2.8 – 0.0)	
-	Financial situation	0.0(0.0-0.0)	
-	Living conditions	0.0(-2.0-0.0)	
-	Depend on others	0.0(0.0-0.0)	
-	Freedom to eat	-2.0 (-4.0 – 0.0)	
-	Freedom to drink	-1.0 (-2.0 – 0.0)	

<sup>&</sup>lt;sup>a</sup>Assessment of Burden of Chronic Conditions tool, high scores equal high burden, <sup>b</sup>Saint George Respiratory Questionnaire, high scores equal low QoL, <sup>c</sup>Hospital Anxiety and Depression Scale, high scores equal possible (8-10) or probable (11-21) depression/anxiety, <sup>d</sup>Asthma Quality of Life Questionnaire, high scores equal high QoL, <sup>e</sup>Audit of Diabetes-Dependent Quality of Life, high scores equal high QoL