

Asthma Control & Communication Instrument

Your name: _____

Today's date: ___/___/___
month day year

Please check one answer for each of the following questions.
Your answers will help your doctor give you the best asthma care.

Direction					
<p>1. Since your last visit to this doctor's office, how has your asthma been?</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> If this is your first visit to this doctor, please answer about the past 2 months. </div>	Better ▼ <input type="checkbox"/>	Same ▼ <input type="checkbox"/>	Worse ▼ <input type="checkbox"/>		
Bothered					
<p>2. Since your last visit to this doctor's office, how much have you been bothered by your asthma?</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> If this is your first visit to this doctor, please answer about the past 2 months. </div>	Not bothered ▼ <input type="checkbox"/>	Somewhat bothered ▼ <input type="checkbox"/>	Very bothered ▼ <input type="checkbox"/>		
Risk					
<p>3-5. Since your last visit to this doctor's office, have you:</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> If this is your first visit to this doctor, please answer about the past 2 months. </div>	No ▼ <input type="checkbox"/>	Yes ▼ <input type="checkbox"/>			
<p>3. Been to the emergency room for your asthma?</p>	<input type="checkbox"/>	<input type="checkbox"/>			
<p>4. Been hospitalized for your asthma?</p>	<input type="checkbox"/>	<input type="checkbox"/>			
<p>5. Used prednisone (steroid pill, steroid liquid or steroid syrup) for your asthma?</p>	<input type="checkbox"/>	<input type="checkbox"/>			
Forget to take medicine					
<p>6. How often do you forget to take your daily asthma medicine when you feel fine?</p>	I am not supposed to take a daily asthma medicine ▼ <input type="checkbox"/>	None of the time ▼ <input type="checkbox"/>	Some of the time ▼ <input type="checkbox"/>	Most of the time ▼ <input type="checkbox"/>	All of the time ▼ <input type="checkbox"/>

FIG E1. The final version of the Asthma Control and Communication Instrument.

Asthma Control Questions

Asthma Symptoms

7. Over the **past week**, how many days have you had asthma symptoms? For example:

	Days				
	0	1-2	3-6	Every day (not all day long)	Every day (all day long)
<ul style="list-style-type: none"> ▪ Cough ▪ Chest tightness ▪ Shortness of breath ▪ Sputum (spit, mucous, phlegm when coughing) ▪ Difficulty taking a deep breath ▪ Wheezy or whistling sound in the chest 					

Reliever use

8. Over the **past week**, how many days have you had to use medicine to quickly relieve your asthma? For example:

	Days				
	0	1-2	3-6	Every day (not all day long)	Every day (all day long)
<ul style="list-style-type: none"> ▪ Albuterol ▪ Inhaler ▪ Spray ▪ Pump ▪ Machine ▪ Nebulizer 					

Attacks

9. Over the **past week**, how many days did you have an asthma attack? For example:

	Days			
	0	1	2-3	4-7
<ul style="list-style-type: none"> ▪ When it is harder to breathe ▪ When you use more asthma medicine ▪ When your medicine does not work 				

Activity Limitation

10. Over the **past week**, how much did your asthma limit your activities?

	Not at all	Slightly	Moderately	Very much	Completely

Nighttime Symptoms

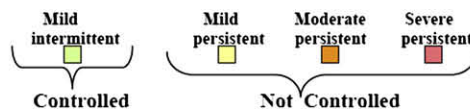
11. Now for this question, please answer about the **past 2 weeks**.

How many nights did **your asthma** keep you from sleeping or wake you up in the **past 2 weeks**?

	Nights				
	0	1	2	3-7	8-14

For clinician use only – Asthma Control Assignment

Assign patient's current level of asthma control by looking at box checked farthest to the right on questions 7-11 and match color of this box to level of asthma control in this section and circle and/or document in patient's chart.



(Continued).

12. Please write down anything else you would like your doctor to know about **your asthma.**

Thank you very much for taking the time to answer this questionnaire!

(Continued).

TABLE E1. ACCI Control domain scoring values among participants (n = 270)

ACCI categories	Percentage	ACCI sum score, mean (95% CI)	ACCI problem index, mean (95% CI)
Mild-intermittent	5	1 (0.7-1.9)	0
Mild-persistent	24	4 (3.7-4.6)	1.8 (1.6-2.0)
Moderate-persistent	45	9 (8.1-9.1)	3.5 (3.3-3.7)
Severe-persistent	26	13 (12.5-14.1)	4.4 (4.2-4.7)

TABLE E2. ACCI PCA and internal consistency reliability (n = 270)

	Components		Global perception of asthma burden	Adherence
	Asthma control	Acute care		
Asthma attacks	0.792	-0.041	0.095	-0.074
Reliever use	0.735	0.086	0.104	0.143
Activity limitation	0.734	0.167	0.147	-0.075
Nocturnal symptoms	0.715	0.151	0.102	-0.081
Asthma symptoms	0.677	0.082	0.282	0.066
Hospitalizations	0.055	0.844	0.129	0.073
ED visits	0.073	0.824	0.215	-0.116
Oral steroid use	0.238	0.610	-0.359	0.019
Direction (better, same, worse)	0.223	-0.020	0.800	0.018
Bother	0.395	0.204	0.628	0.079
Adherence	-0.023	-0.018	0.027	0.978
Internal consistency reliability Cronbach α	0.800	0.590	0.573	Not applicable

Extraction method, PCA; rotation method, varimax with Kaiser normalization.
ED, Emergency department.

TABLE E3. ACCI discriminant properties: Mean (95% CI) asthma control, QOL, and spirometric values across ACCI control categories by using ANOVA by race (black and white subjects)

	ACCI Mild-intermittent	ACCI Mild-persistent	ACCI Moderate-persistent	ACCI Severe-persistent	P trend
Asthma control measures					
ACT black	19	18	15	13	<.001
ACT white	23	19	15	11	<.001
ACQ black	1.6	2	2.7	3.3	<.001
ACQ white	1	2	2.7	3.3	<.001
ATAQ black	0.75	0.95	1.7	2	<.001
ATAQ white	0.67	0.72	1.7	2	<.001
QOL measures					
m-AQLQ domains					
Overall black	5.6	5.1	4.6	3.6	.001
Overall white	6.6	5.4	4.4	3.5	.001
Symptom black	5.6	5.2	4.4	3.4	<.001
Symptom white	6.6	5.1	4.3	3.4	<.001
Activity black	6.5	5.6	5.1	4.2	<.001
Activity white	6.8	5.7	4.9	3.8	
Environmental black	5.0	4.5	4.1	3.2	<.001
Environmental white	6.0	5.2	3.9	3.2	<.001
Emotional black	5.4	5.1	4.8	3.7	.002
Emotional white	6.9	5.5	4.5	4.2	.002
SGRQ domains					
Overall black	25	38	41	53	<.001
Overall white	26	38	46	57	.001
Symptom black	54	53	59	67	.001
Symptom white	30	60	58	73	.002
Activity black	33	51	55	66	.002
Activity white	19	48	60	71	.003
Impact black	12	27	27	41	<.001
Impact white	29	26	34	44	.007
SF-36 domains					
Physical CS black	46	45	41	33	.005
Physical CS white	50	41	37	30	.005
Mental CS black	55	45	45	43	.332
Mental CS white	14	44	43	45	.176
Spirometric values					
FEV ₁ (L) black	2	2	2	1.9	.433
FEV ₁ (L) white	3.3	2.5	2.2	2.1	.011
FEV ₁ % predicted black	80	76	74	72	.334
FEV ₁ % predicted white	93	73	74	68	.151
PEFR (L/s) black	5.4	4.7	4.5	4.1	.035
PEFR (L/s) white	8.2	5.7	4.8	4.9	.007
PEFR % predicted black	86	71	68	62	.021
PEFR % predicted white	101	76	75	70	.076

CS, Component score.