

Supplement

Supplementary Table 1 Item response rates as %, moderate and severe responses combined for the 11 items with the highest response rates

Item no.	Description	Severity score	Change score	Mean
1	Appearance of purulent/thick sputum	59	59	59
3	Worsening of cough	69	61	65
5	Hard to cough out sputum	51	46	49
7	Colour of sputum changes	35	42	39
8	Increased volume of sputum	60	58	59
9	Abnormal sound during breathing/wheezing	52	45	49
10	Laboured breathing	63	59	61
11	Shortness of breath	64	59	62
12	Chest distress	49	45	47
13	Limitation of activity	58	54	56
15	Exhaustion & fatigue	49	49	49

Supplementary Table 2 **Sensitivity and specificity using any 1 or more CERT item that scored moderate or severe**

At least 1 positive CERT out of 5	'Exacerbating'	'Not exacerbating'	Total
CERT exacerbator	133	6	139
CERT non-exacerbator	1	13	11
Total	134	16	150

Notes:

Sensitivity 99.3, specificity 62.5%, kappa value 0.7161.

The heading 'Exacerbating' refers to patients with any 2 or more item combinations (out of the 10 final items) that scored moderate or severe in response to the severity of symptoms during an exacerbation.

Supplementary Table 3 Sensitivity and specificity using any 2 or more CERT items that scored moderate or severe

CERT positive, at least 2 out of 5	'Exacerbating'	'Not exacerbating'	Total
CERT exacerbator	123	0	123
CERT non-exacerbator	1	16	27
Total	134	16	150

Notes:

Sensitivity 91.8, specificity 100%, kappa value 0.7046.

The heading 'Exacerbating' refers to patients with any 2 or more item combinations (out of the 10 final items) that scored moderate or severe in response to the severity of symptoms during an exacerbation.

Supplementary Table 4 Sensitivity and specificity using any 1 or more CERT item that scored moderate or severe

CERT positive, at least 1 out of 5	'Exacerbating'	'Not exacerbating'	Total
CERT exacerbator	121	18	139
CERT non-exacerbator	1	10	11
Total	122	28	150

Notes:

Sensitivity 99.2, specificity 36.0%, kappa value 0.4712.

The heading 'Exacerbating' refers to patients with any 3 or more item combinations (out of the 10 final items) that scored moderate or severe in response to the severity of symptoms during an exacerbation.

Supplementary Table 5 Sensitivity and specificity using any 2 or more CERT items that scored moderate or severe

CERT positive, at least 2 out of 5	'Exacerbating'	'Not exacerbating'	Total
CERT exacerbator	120	3	123
CERT non-exacerbator	2	25	27
Total	122	28	150

Notes:

Sensitivity 98.4, specificity 89.3%, kappa value 0.8645.

The heading 'Exacerbating' refers to patients with any 3 or more item combinations (out of the 10 final items) that scored moderate or severe in response to the severity of symptoms during an exacerbation.


Supplementary Material: GlaxoSmithKline plc.-sponsored international advisory board

Scientific collaboration between GlaxoSmithKline plc. and diverse groups of experts (academia, industry, regulators, public health authorities, etc) is necessary to advance key medical/scientific discussions and to contribute and share GlaxoSmithKline plc.'s broad scientific knowledge and experience in various settings. GlaxoSmithKline plc.'s scientific engagement activities are entirely non-promotional and are designed to, in no way, influence the prescription, supply, sale, or use of their medicines. Any materials used (eg, slides, invitations, etc) are approved as non-promotional in the market in which the activity occurs and presentation of data is limited to that necessary to enable the discussion.

Supplementary Figure S1 The CERT for use by Chinese patients, including pictograms, and an English translation

慢性阻塞性肺疾病急性加重识别卡






此卡可帮助您评估目前是否处于慢阻肺急性加重，请根据实际情况打“✓”

 咳嗽加重	 痰量增加	 感觉吸进去的空气不够用	 喘气费力	 活动受限
与平时一样 <input type="radio"/>	与平时一样 <input type="radio"/>	与平时一样 <input type="radio"/>	与平时一样 <input type="radio"/>	与平时一样 <input type="radio"/>
轻微 <input type="radio"/>	轻微 <input type="radio"/>	轻微 <input type="radio"/>	轻微 <input type="radio"/>	轻微 <input type="radio"/>
中度 <input type="radio"/>	中度 <input type="radio"/>	中度 <input type="radio"/>	中度 <input type="radio"/>	中度 <input type="radio"/>
严重 <input type="radio"/>	严重 <input type="radio"/>	严重 <input type="radio"/>	严重 <input type="radio"/>	严重 <input type="radio"/>

红色区域内您勾选2个以上的 ✓，提示您可能处于慢阻肺急性加重期，建议您至医院门急诊进一步就医。

年 月 日

Tick ✓ the most accurate description for you today compared with your usual state

 Worsening cough	 Increased volume of sputum	 Shortness of breath	 Laboured breathing	 Limitation of activity
As usual <input type="radio"/>	As usual <input type="radio"/>	As usual <input type="radio"/>	As usual <input type="radio"/>	As usual <input type="radio"/>
Mild <input type="radio"/>	Mild <input type="radio"/>	Mild <input type="radio"/>	Mild <input type="radio"/>	Mild <input type="radio"/>
Moderate <input type="radio"/>	Moderate <input type="radio"/>	Moderate <input type="radio"/>	Moderate <input type="radio"/>	Moderate <input type="radio"/>
Severe <input type="radio"/>	Severe <input type="radio"/>	Severe <input type="radio"/>	Severe <input type="radio"/>	Severe <input type="radio"/>

If you choose at least 2 items in red you are probably experiencing a COPD exacerbation, and should visit your doctor