

Supplement 1

FRAIL Scale

Fatigue	How much of the time during the past 4 weeks did you feel tired? (all of the time, most of the time = 1 point; some of the time, on very few occasions, none of the time = 0 point)
Resistance	Do you have any difficulty walking up 10 steps alone without resting and without aids? (Yes = 1 point; No = 0 point)
Ambulation	By yourself and not using aids, do you have any difficulty walking several hundred yards? (Yes = 1 point; No = 0 point)
Illness	Did a doctor ever tell you that you have the following illness? (5 or more = 1 point; 0 - 4 = 0 point)
Loss of weight	Have you inadvertently lost more than 5kg or 5% of your body weight in the past year? (Yes = 1 point; No = 0 point)
(The illnesses include hypertension, diabetes, cancer (other than minor skin cancer), chronic lung disease, heart attack, congestive heart failure, angina, asthma, arthritis, stroke, and kidney disease)	
SCORING: ROBUST = 0 PRE-FRAIL = 1-2 FRAIL = > 3	

Supplement 2

The modified patient-reported outcome scale for chronic obstructive pulmonary disease (mCOPD-PRO)

Please read each question below and place a mark (✕) below the number of the response or in the box that best describes how you have been feeling during the **past 2 weeks**. Be sure to only select **one** response for each question.

Example: Did you have panting?

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
			✕	

Section 1 Physiological domain

1. Did you cough?

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
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2. Did you have phlegm?

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
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3. Did you have chest tightness?

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
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4. Did you have panting?

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
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5. Did you get short of breath?

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
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6. Did you feel weak when you talk?

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
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7. Did you have fatigue?

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
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8. Did you feel that you were in a poor spirit?

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
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9. Did you notice cyanosis (your lips, nails, skin, etc. turned purple?)

Not at all 0	Very slight 1	Moderate 2	Obvious 3	Very obvious 4
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10. Were you afraid of the wind (cold)?

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
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11. Did you have abdominal distension?

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
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12. Did you often catch cold?

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
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13. Could you go outdoors alone? (walking, going shopping, having a haircut, taking a bus, etc.)

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
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14. These are questions about the effects of daily activities on your condition.

	Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
14.1 Was your cough aggravated by daily activities?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14.2 Was your chest tightness aggravated by daily activities?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14.3 Was your panting aggravated by daily activities?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14.4 Was your shortness of breath aggravated by daily activities?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 2 Psychological domain

15. Did you often feel upset?

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
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16. Did you often feel sad?

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
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17. Did you worry about your illness?

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
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18. These are questions about the effects of mood swings on your condition.

	Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
18.1 Was your cough aggravated by mood swings?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18.2 Was your chest tightness aggravated by mood swings?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18.3 Was your panting aggravated by mood swings?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18.4 Was your shortness of breath aggravated by mood swings?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Section 3 Environmental domain

19. Did the illness affect your contacts with friends, colleagues or neighbors?

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
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20. Would your illness be affected by weather changes (cloudy, smoggy, damp and sultry days, etc.)?

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
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21. Would your illness get worse when in a closed or poorly ventilated environment?

Never 0	Hardly ever 1	Several times 2	Many times 3	Almost all the time 4
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The end

Thank you for your participation!

Notes: Reprinted with permission from Dove Medical Press. Li J, Wang J, Xie Y, Feng Z. Development and validation of the modified patient-reported outcome scale for chronic obstructive pulmonary disease (mCOPD-PRO). *Int J Chron Obstruct Pulmon Dis.* 2020;15:661–669.²²