

### Supplementary Material #3

#### The Composite Autonomic Symptom Score (COMPASS-31)

COMPASS-31 score will be calculated as per Sletten 2012 (1).

##### Items and response scales

1. In the past year, have you ever felt faint, dizzy, “goofy”, or had difficulty thinking soon after standing up from a sitting or lying position?
  - 1) Yes
  - 2) No (if you marked No, please skip to question 5)
2. When standing up, how frequently do you get these feelings or symptoms?
  - 1) Rarely
  - 2) Occasionally
  - 3) Frequently
  - 4) Almost Always
3. How would you rate the severity of these feelings or symptoms? 1
  - 1) Mild
  - 2) Moderate
  - 3) Severe
4. In the past year, have these feelings or symptoms that you have experienced:
  - 1) Gotten much worse
  - 2) Gotten somewhat worse
  - 3) Stayed about the same
  - 4) Gotten somewhat better
  - 5) Gotten much better
  - 6) Completely gone
5. In the past year, have you ever noticed color changes in your skin, such as red, white, or purple?
  - 1) Yes
  - 2) No (if you marked No, please skip to question 8)
6. What parts of your body are affected by these color changes? (Check all that apply)
  - 1) Hands
  - 2) Feet
7. Are these changes in your skin color:
  - 1) Getting much worse
  - 2) Getting somewhat worse
  - 3) Staying about the same
  - 4) Getting somewhat better
  - 5) Getting much better
  - 6) Completely gone
8. In the past 5 years, what changes, if any, have occurred in your general body sweating?
  - 1) I sweat much more than I used to
  - 2) I sweat somewhat more than I used to
  - 3) I haven't noticed any changes in my sweating
  - 4) I sweat somewhat less than I used to
  - 5) I sweat much less than I used to
9. Do your eyes feel excessively dry?
  - 1) Yes
  - 2) No

10. Does your mouth feel excessively dry?
  - 1) Yes
  - 2) No
11. For the symptom of dry eyes or dry mouth that you have had for the longest period of time, is this symptom:
  - 1) I have not had any of these symptoms
  - 2) Getting much worse
  - 3) Getting somewhat worse
  - 4) Staying about the same
  - 5) Getting somewhat better
  - 6) Getting much better
  - 7) Completely gone
12. In the past year, have you noticed any changes in how quickly you get full when eating a meal?
  - 1) I get full a lot more quickly now than I used to
  - 2) I get full more quickly now than I used to
  - 3) I haven't noticed any change
  - 4) I get full less quickly now than I used to
  - 5) I get full a lot less quickly now than I used to
13. In the past year, have you felt excessively full or persistently full (bloated feeling) after a meal?
  - 1) Never
  - 2) Sometimes
  - 3) A lot of the time
14. In the past year, have you vomited after a meal?
  - 1) Never
  - 2) Sometimes
  - 3) A lot of the time
15. In the past year, have you had a cramping or colicky abdominal pain?
  - 1) Never
  - 2) Sometimes
  - 3) A lot of the time
16. In the past year, have you had any bouts of diarrhea?
  - 1) Yes
  - 2) No (if you marked No, please skip to question 20)
17. How frequently does this occur?
  - 1) Rarely
  - 2) Occasionally
  - 3) Frequently \_\_\_\_\_ times per month
  - 4) Constantly
18. How severe are these bouts of diarrhea?
  - 1) Mild
  - 2) Moderate
  - 3) Severe
19. Are your bouts of diarrhea getting:
  - 1) Much worse
  - 2) Somewhat worse
  - 3) Staying the same
  - 4) Somewhat better
  - 5) Much better
  - 6) Completely gone

20. In the past year, have you been constipated?
  - 1) Yes
  - 2) No (if you marked No, please skip to question 24)
21. How frequently are you constipated?
  - 1) Rarely
  - 2) Occasionally
  - 3) Frequently \_\_\_\_\_ times per month
  - 4) Constantly
22. How severe are these episodes of constipation?
  - 1) Mild
  - 2) Moderate
  - 3) Severe
23. Is your constipation getting:
  - 1) Much worse
  - 2) Somewhat worse
  - 3) Staying the same
  - 4) Somewhat better
  - 5) Much better
  - 6) Completely gone
24. In the past year, have you ever lost control of your bladder function?
  - 1) Never
  - 2) Occasionally
  - 3) Frequently \_\_\_\_\_ times per month
  - 4) Constantly
25. In the past year, have you had difficulty passing urine?
  - 1) Never
  - 2) Occasionally
  - 3) Frequently \_\_\_\_\_ times per month
  - 4) Constantly
26. In the past year, have you had trouble completely emptying your bladder?
  - 1) Never
  - 2) Occasionally
  - 3) Frequently \_\_\_\_\_ times per month
  - 4) Constantly
27. In the past year, without sunglasses or tinted glasses, has bright light bothered your eyes?
  - 1) Never (if you marked Never, please skip to question 29)
  - 2) Occasionally
  - 3) Frequently
  - 4) Constantly
28. How severe is this sensitivity to bright light?
  - 1) Mild
  - 2) Moderate
  - 3) Severe
29. In the past year, have you had trouble focusing your eyes?
  - 1) Never (if you marked Never, please skip to question 31)
  - 2) Occasionally
  - 3) Frequently
  - 4) Constantly
30. How severe is this focusing problem?

- 1) Mild
- 2) Moderate
- 3) Severe

31. Is the most troublesome symptom with your eyes (i.e. sensitivity to bright light or trouble focusing) getting:

- 1) I have not had any of these symptoms
- 2) Much worse
- 3) Somewhat worse
- 4) Staying about the same
- 5) Somewhat better
- 6) Much better
- 7) Completely gone

#### Scoring algorithm

Domain	Item	Answer	Points	
Orthostatic Intolerance	1	1	1	
		2	0	
	2	1	0	
		2	1	
		3	2	
		4	3	
	3	1	1	
		2	2	
		3	3	
	4	1	3	
		2	2	
		3	1	
		4-6	0	
	Vasomotor	5	1	1
			2	0
		6	1	1
2			1	
7		1	3	
		2	2	
		3	1	
		4-6	0	
Secretomotor		8	1	1
			2	0
	3		0	
	4		1	
	5		2	
	6		0	
	9	1	1	
		2	0	
	10	1	1	
		2	0	
	11	1	0	
		2	3	
		3	2	
		4	1	

		5-7	0
Gastrointestinal	12	1	2
		2	1
		3-5	0
	13	1	0
		2	1
		3	2
	14	1	0
		2	1
		3	2
	15	1	0
		2	1
		3	2
	16	1	1
		2	0
	17	1	0
		2	1
		3	2
		4	3
	18	1	1
		2	2
		3	3
	19	1	3
		2	2
		3	1
		4-6	0
	20	1	1
		2	0
	21	1	0
		2	1
		3	2
4		3	
22	1	1	
	2	2	
	3	3	
23	1	3	
	2	2	
	3	1	
	4-6	0	
Bladder	24	1	0
		2	1
		3	2
		4	3
	25	1	0
		2	1
		3	2
		4	3
	26	1	0
		2	1
		3	2
		4	3

Pupillomotor	27	1	0
		2	1
		3	2
		4	3
	28	1	1
		2	2
		3	3
	29	1	0
		2	1
		3	2
		4	3
	30	1	1
		2	2
		3	3
	31	1	0
		2	3
3		2	
4		1	
5-7		0	

#### Calculation of COMPASS-31-score

1. Orthostatic Intolerance-score: Sum of items 1-4 multiplied by 4
2. Vasomotor-score: Sum of items 5-7 multiplied by 0.8333
3. Secretomotor-score: Sum of items 8-11 multiplied by 2.1428571
4. Gastrointestinal-score: Sum of items 12-23 multiplied by 0.8928571
5. Bladder-score: Sum of items 24-26 multiplied by 1.111
6. Pupillomotor-score: Sum of items 27-31 multiplied by 0.333
7. COMPASS-31-score: Sum of all 6 domain scores

#### **References:**

1. Sletten DM, Suarez GA, Low PA, Mandrekar J, Singer W. COMPASS 31: a refined and abbreviated Composite Autonomic Symptom Score. *Mayo Clin Proc* [Internet]. 2012 Dec [cited 2019 Sep 27];87(12):1196–201. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S0025619612010385>