

Supplemental Online Content

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eTable 1. Cognition Assessments

eTable 2. Oveporexton on PVT at 1- and 7-Hour Post-Morning Dose

This supplemental material has been provided by the authors to give readers additional information about their work.

eTable 1. Cognition Assessments

Assessment	Description	Main performance measure
Sustained attention		
Psychomotor Vigilance Task (PVT)	A simple visual reaction time test in which participants attend to a computer display and press a predefined button whenever a target stimulus appears in a predefined single location as quickly as possible. During the test, 100 targets appear at pseudorandom inter-target intervals over a 10-minute period.	The number of lapses, defined as responses ≥ 500 ms after target onset.
Memory		
Continuous Paired Associate Learning (CPAL) Test	A visual paired associate learning paradigm in which participants must learn and remember the unique locations of 6 amoeba-like shapes per set, for 8 sets. A single location is shown as an open circle in the center of the display, and this is surrounded peripherally by same size six blue-filled circles. Participants must acknowledge each pattern by touching the screen. After a 5-second delay, the patterns in the peripheral locations are hidden and the participant must touch the peripheral location that contains the same pattern. If incorrect, the participant is prompted to try another location until all 6 locations are found.	The number of errors made in finding the correct locations of all patterns on these 6 trials.
Executive Function		
Working Memory: One Back Test (ONB)	A measure of working memory based on the n-back paradigm using playing card stimuli as the stimuli. In this test, the playing cards are identical to those found in a standard deck of 52 playing cards (without the joker cards). One playing card is presented in the center of the display and participants must press a “yes” or “no” button to indicate whether the card presented is identical to that shown immediately before. If the response is correct, the next stimulus card is shown (total 42 trials), if the response is incorrect, the card remains present until participants press the other button.	Average reaction time of correct responses.
Processing Speed: International Digit Symbol Substitution Test – symbols (IDSST-s)	A processing speed test based on the pencil and paper Digit Symbol Substitution paradigm. A legend is shown at the top of the IDSST-s display in which 9 different symbols are paired uniquely with a digit from 1 to 9. Participants must match digits as they appear in the center of the display with the correct symbol from the panel underneath. If incorrect, the participant is prompted to try again until the correct symbol is selected. The participant must place as many correct symbols in the boxes as possible over the 120-second duration of the test.	The number of correct responses.

eTable 2. Oveporexton on PVT at 1- and 7-Hour Post-Morning Dose

	Placebo (n = 22)	Oveporexton			
		0.5/0.5 mg (n = 23)	2/2 mg (n = 21)	2/5 mg (n = 23)	7 mg QD (n = 23)
PVT lapses (1-hour post-dose)					
Mean (SD) at baseline	15.8 (17.29)	15.3 (17.49)	14.3 (16.49)	15.1 (21.56)	9.7 (12.40)
Mean (SD) at week 8	17.8 (16.06)	6.1 (8.45)	9.8 (19.74)	10.1 (17.49)	10.0 (19.82)
PVT lapses (7-hour post-dose)					
Mean (SD) at baseline	15.5 (19.35)	13.7 (16.18)	20.9 (21.58)	18.2 (23.19)	13.7 (17.57)
Mean (SD) at week 8	18.9 (15.74)	5.0 (5.01)	12.1 (20.32)	8.3 (16.79)	7.5 (15.32)

PVT, Psychomotor Vigilance Task; SD, standard deviation.