

### **CogState (Cognitive Battery)**

CogState cognitive tasks use novel visual and verbal stimuli to ensure assessment is culture-neutral and not limited by a subject or participant's level of education. All Cogstate tasks are designed for repeated administration with minimal practice or learning effects.

A Cogstate battery comprises a number of individual tasks – each designed to test a specific area of cognition. When a number of these individual tests are put together to form a test battery, a more complete picture of a person's cognitive state can be defined.

1. Groton Maze Learning Task
2. Detection Task
3. Identification Task
4. One Card Learning Task
5. One Back Task
6. Set-Shifting Task
7. Two back Task

## SSAT 058: Final locked data analysis

Version 4.0: 22<sup>nd</sup> May 2018

Task code	Variable code	Unit of measurement	Description and interpretation of scores
CPAL	acc	Total errors	Accuracy of performance; Total number of errors across the five rounds Lower score = better performance
DET	lmn	Log <sub>10</sub> milliseconds	Speed of performance; mean of the log <sub>10</sub> transformed reaction times for correct responses Lower score = better performance
GMCT	mps	Moves per second	The total number of correct moves made per second. Higher score = better performance
GML	ter	Errors	Total number of errors made in attempting to learn the same hidden pathway on five consecutive trials at a single session Lower score = better performance
GMR	ter	Errors	Total number of errors made in remembering the maze pathway after a delay Lower score = better performance
IDN	lmn	Log <sub>10</sub> milliseconds	Speed of performance; mean of the log <sub>10</sub> transformed reaction times for correct responses Lower score = better performance
ISL	cor	Number of correct responses	Total number of correct responses made in remembering the list on three consecutive trials at a single session Higher score = better performance
ISLR	cor	Number of correct responses	Total number of correct responses made in remembering the list after a delay Higher score = better performance
OCL	acc	Arcsine proportion correct	Accuracy of performance; arcsine transformation of the square root of the proportion of correct responses Higher score = better performance
ONB	acc	Arcsine proportion correct	Accuracy of performance; arcsine transformation of the square root of the proportion of correct responses Higher score = better performance
SECT	acc	Arcsine proportion correct	Accuracy of performance; arcsine transformation of the square root of the proportion of correct responses Higher score = better performance
SETS	acc	Total number of errors	Accuracy of performance; Total number of errors across the five rounds Lower score = better performance
TWOB	acc	Arcsine proportion correct	Accuracy of performance; arcsine transformation of the square root of the proportion of correct responses Higher score = better performance

# SSAT 058: Final locked data analysis

Version 4.0: 22<sup>nd</sup> May 2018

Session 1 – Screening Session 2 – Baseline Session 3 – Week 4 Session 4 – Week 24	<p><b>Weighted median (IQR)</b></p> <p><b><i>p-values derived using weighted test for location</i></b></p> <p><i>(some test results available multiple times per visit thus this is accounted using weighted median)</i></p>
--	--

Task code/task name		Cognitive function tested	Screen N=41	Baseline N=41	Week 4	Week 24
Attended DNA Drop out				41 0 0	40 0 1	39 0 2
Composite age adjusted z-score based on available normative data	All available normative tests	OCL ONB TWOB DET IDN GMR GML	N=40  -0.12(-0.77 to 0.53)	N=40  -0.01(-0.71 to 0.80)	N=40  -0.06(-0.71 to 0.72)	N=39  -0.15(-0.62 to 0.78)
Change in age adjusted composite z-score based on <u>all</u> available normative data					Baseline to week 4	Baseline to week 24
Change in age adjusted composite z-score based on <u>all</u> available normative data					0.00(-0.43 to 0.34) Range: -3.25 to 6.49  P=0.634 Using weighted test for location	0.00(-0.61 to 0.52) Range: -5.31 to 7.00  P=0.995 Using weighted test for location

SSAT 058: Final locked data analysis

Version 4.0: 22<sup>nd</sup> May 2018

Task code/task name		Cognitive function tested	Screen N=41	Baseline N=41	Week 4	Week 24
Attended				41	40	39
DNA				0	0	0
Drop out				0	1	2
<b>ACC – Accuracy of performance</b>						
<b>CPAL</b>	Paired associate learning		<i>nodata</i>			
Continuo	Accuracy of performance; Total number of errors across the five rounds					
us paired	Lower score = better performance					
associate learning						
Find the correct location of the object.						
<b>OCL</b>	Learning		N=40	N=40	N=40	N=39
One-card	Accuracy of performance; arcsine transformation of the square root of the proportion of correct responses		Total= 9947	Total= 10003	Total= 10284	Total= 10165
learning	Higher score = better performance		0.95 (0.90 to 1.03)	0.98 (0.84 to 1.05)	0.98 (0.90 to 1.07)	1.01 (0.90 to 1.07)
					Baseline to week 4 Weighted median change (IQR)	Baseline to week 24 Weighted median change (IQR)
Change from Baseline to week post switch in OCL (wk-baseline)					N=39 0.004(-0.04 to 0.05) Range: -0.27 to 0.63  P=0.167  Using weighted test for location	N=39 0.04(-0.06 to 0.10) Range: -0.41 to 0.50  P=0.168  Using weighted test for location
+ve means (better performance) at wk compared to baseline						

SSAT 058: Final locked data analysis

Version 4.0: 22<sup>nd</sup> May 2018

Task code/task name		Cognitive function tested	Screen N=41	Baseline N=41	Week 4	Week 24
Attended DNA Drop out				41 0 0	40 0 1	39 0 2
OCL age adjusted z-score			N=39	N=36	N=39	N=38
Continuous paired associate learning <i>Find the correct location of the object.</i>		-3SD -2SD -1SD Average 1SD 2SD 3SD	3(7.7) 7(18.0) 13(33.3) 0(0.0) 13(33.3) 3(7.7)	2(5.6) 7(19.4) 14(38.9) 0(0.0) 9(25.0) 4((11.1)	2(5.1) 9(23.1) 15(38.5) 0(0.0) 8(20.5) 5(12.8)	3(7.9) 8(21.1) 9(23.7) 0(0.0) 15(39.5) 3(7.9)
ONB  One-back memory	Working memory – Simple Accuracy of performance; arcsine transformation of the square root of the proportion of correct responses Higher score = better performance		N=39  Total= 12669  1.32 (1.19 to 1.39)	N=40  Total= 12926  1.32 (1.19 to 1.39)	N=40  Total= 14076  1.39 (1.32 to 1.57)	N=39  Total= 13444  1.39 (1.32 to 1.39)
					Baseline to week 4 Weighted median change (IQR)	Baseline to week 24 Weighted median change (IQR)
Change from Baseline to week post switch in ONB (wk-baseline)  +ve means (better performance) at wk compared to baseline					N=39 0.05(-0.07 to 0.25) Range: -0.25 to 1.23  P=0.020  Using weighted test for location	N=39 0.07(-0.07 to 0.18) Range: -1.03 to 1.43  P=0.212  Using weighted test for location

# SSAT 058: Final locked data analysis

Version 4.0: 22<sup>nd</sup> May 2018

Task code/task name		Cognitive function tested	Screen N=41	Baseline N=41	Week 4	Week 24
Attended DNA Drop out				41 0 0	40 0 1	39 0 2
ONB mean age adjusted z- score  One-back memory			N=38	N=36	N=39	N=36
		-4SD	1(2.6)	1(2.8)	2(5.1)	0(0.0)
		-3SD	1(2.6)	3(8.3)	0(0.0)	1(2.8)
		-2SD	6(15.8)	3(8.3)	3(7.7)	0(0.0)
		-1SD	15(39.5)	16(44.4)	14(35.9)	11(30.6)
		Average	0(0.0)	0(0.0)	0(0.0)	0(0.0)
		1SD	11(29.0)	7(19.4)	9(23.1)	16(44.4)
		2SD	4(10.5)	6(16.7)	11(28.2)	8(22.2)
<b>SETS</b>  <b>Set Shifting</b>	<b>Executive Function</b> <i>Accuracy of performance; Total number of errors across the five rounds Lower score = better performance</i>		N=39  Total= 10857  1.04 (0.98 to 1.16)	N=40  Total= 11660  1.08 (0.986 to 1.23)	N=40  Total= 11517  1.14 (1.95 to 1.21)	N=39  Total= 11379  1.09 (0.96 to 1.25)
					<b>Baseline to week 4</b> <b>Weighted median change (IQR)</b>	<b>Baseline to week 24</b> <b>Weighted median change (IQR)</b>
<b>Change from Baseline to week post switch in SETS (wk-baseline)</b>  <b>-ve means (better performance) at wk compared to baseline</b>					N=39 -0.01(-0.04 to 0.05) Range: -0.30 to 0.28  P=0.908  Using weighted test for location	N=39 0.004(-0.03 to 0.04) Range: -0.51 to 0.33  P=0.958  Using weighted test for location

SSAT 058: Final locked data analysis

Version 4.0: 22<sup>nd</sup> May 2018

Task code/task name		Cognitive function tested	Screen N=41	Baseline N=41	Week 4	Week 24
Attended DNA Drop out				41 0 0	40 0 1	39 0 2
SETS  Set Shifting mean age adjusted z- score	Executive Function Accuracy of performance; Total number of errors across the five rounds Lower score = better performance	No normal population data available				
SETSED  (extradimensional shift)	Executive Function Accuracy of performance; Total number of errors across the five rounds Lower score = better performance	N=39  Total=10893  1.05 (1.00 to 1.14)	N=40  Total=11639  1.08 (1.00 to 1.23)	N=40  Total=11541  1.11 (0.98 to 1.23)	N=38  Total=10886  1.11 (0.98 to 1.23)	
				Baseline to week 4 Weighted median change (IQR)	Baseline to week 24 Weighted median change (IQR)	
Change from Baseline to week post switch in SETSED (wk-baseline)  -ve means (better performance) at wk compared to baseline				N=39 0.00(-0.09 to 0.06) Range: -0.21 to 0.33  P=0.829  Using weighted test for location	N=38 -0.02(-0.08 to 0.07) Range: -0.23 to 0.33  P=0.994  Using weighted test for location	

# SSAT 058: Final locked data analysis

Version 4.0: 22<sup>nd</sup> May 2018

Task code/task name		Cognitive function tested	Screen N=41	Baseline N=41	Week 4	Week 24
Attended DNA Drop out				41 0 0	40 0 1	39 0 2
SETSED  (extradimens ional shift)	Executive Function Accuracy of performance; Total number of errors across the five rounds Lower score = better performance	No normal population data available				
SETSEDR  (extradimens ional shift reverse)	Executive Function Accuracy of performance; Total number of errors across the five rounds Lower score = better performance	N=39  Total= 10769  1.05 (0.94 to 1.18)	N=40  Total= 11671  1.08 (1.00 to 1.18)	N=40  Total= 11510  1.14 (0.96 to 1.23)	N=38  Total= 11078  1.08 (0.98 to 1.29)	
				Baseline to week 4 Weighted median change (IQR)	Baseline to week 24 Weighted median change (IQR)	
Change from Baseline to week post switch in SETSEDR (wk-baseline)  -ve means (better performance) at wk compared to baseline				N=39 0.00(-0.11 to 0.09) Range: -0.19 to 0.31  P=0.936  Using weighted test for location	N=38 0.00(-0.11 to 0.09) Range: -0.16 to 0.31  P=0.564  Using weighted test for location	



# SSAT 058: Final locked data analysis

Version 4.0: 22<sup>nd</sup> May 2018

Task code/task name		Cognitive function tested	Screen N=41	Baseline N=41	Week 4	Week 24
Attended DNA Drop out				41 0 0	40 0 1	39 0 2
SETSED R  (extradimensional shift reverse)	Executive Function Accuracy of performance; Total number of errors across the five rounds Lower score = better performance	No normal population data available				
SETSID  (Intra-dimensional shift)	Executive Function Accuracy of performance; Total number of errors across the five rounds Lower score = better performance	N=39  Total= 112128  1.05 (1.00 to 1.29)	N=40  Total= 12041  1.08 (0.98 to 1.29)	N=40  Total= 12158  1.18 (1.02 to 1.29)	N=39  Total= 12137  1.18 (1.02 to 1.29)	
				Baseline to week 4 Weighted median change (IQR)	Baseline to week 24 Weighted median change (IQR)	
Change from Baseline to week post switch in SETSID (wk-baseline)  -ve means (better performance) at wk compared to baseline				N=39 0.02(-0.06 to 0.16) Range: -0.54 to 0.43  P=0.369  Using weighted test for location	N=39 0.03(-0.05 to 0.14) Range: -0.35 to 0.39  P=0.153  Using weighted test for location	

# SSAT 058: Final locked data analysis

Version 4.0: 22<sup>nd</sup> May 2018

Task code/task name		Cognitive function tested	Screen N=41	Baseline N=41	Week 4	Week 24
Attended DNA Drop out				41 0 0	40 0 1	39 0 2
SETSID  (Intra-dimensional shift)	Executive Function Accuracy of performance; Total number of errors across the five rounds Lower score = better performance	No normal population data available				
SETSIDR  (Intra-dimensional shift reverse)	Executive Function Accuracy of performance; Total number of errors across the five rounds Lower score = better performance	N=38  Total=10783  1.11 (0.96 to 1.23)	N=40  Total=11597  1.05 (0.96 to 1.23)	N=40  Total=11589  1.18 (0.98 to 1.23)	N=39  Total=11527  1.14 (0.96 to 1.23)	
				Baseline to week 4 Weighted median change (IQR)	Baseline to week 24 Weighted median change (IQR)	
Change from Baseline to week post switch in SETSIDR (wk-baseline)  -ve means (better performance) at wk compared to baseline				N=39 0.00(-0.07 to 0.13) Range: -0.34 to 0.31  P=0.529  Using weighted test for location	N=39 0.00(-0.051 to 0.11) Range: -0.33 to 0.31  P=0.393  Using weighted test for location	

# SSAT 058: Final locked data analysis

Version 4.0: 22<sup>nd</sup> May 2018

Task code/task name		Cognitive function tested	Screen N=41	Baseline N=41	Week 4	Week 24
Attended DNA Drop out				41 0 0	40 0 1	39 0 2
SETSIDR  (Intra-dimensional shift reverse)	Executive Function Accuracy of performance; Total number of errors across the five rounds Lower score = better performance	No normal population data available				
SETSV  (Visual discrimination)	Executive Function Accuracy of performance; Total number of errors across the five rounds Lower score = better performance	N=39  Total=11239  1.11 (0.96 to 1.29)	N=40  Total=12304  1.18 (0.96 to 1.29)	N=40  Total=11653  1.11 (0.92 to 1.29)	N=39  Total=11725  1.05 (0.96 to 1.29)	
				Baseline to week 4 Weighted median change (IQR)	Baseline to week 24 Weighted median change (IQR)	
Change from Baseline to week post switch in SETSV (wk-baseline)  -ve means (better performance) at wk compared to baseline				N=39 0.04(-0.24 to 0.11) Range: -0.68 to 0.52  P=0.359  Using weighted test for location	N=39 0.00(-0.24 to 0.12) Range: -0.79 to 0.65  P=0.649  Using weighted test for location	

# SSAT 058: Final locked data analysis

Version 4.0: 22<sup>nd</sup> May 2018

Task code/task name		Cognitive function tested	Screen N=41	Baseline N=41	Week 4	Week 24
Attended				41	40	39
DNA				0	0	0
Drop out				0	1	2
SETSVD  (Visual discrimination)	Executive Function Accuracy of performance; Total number of errors across the five rounds Lower score = better performance	No normal population data available				
SETSVD R  (Visual discrimination reverse)	Executive Function Accuracy of performance; Total number of errors across the five rounds Lower score = better performance	N=39  Total=11143  1.11 (0.96 to 1.29)	N=40  Total=11895  1.18 (0.96 to 1.29)	N=40  Total=11418  1.11 (0.96 to 1.29)	N=39  Total=11677  1.18 (1.00 to 1.29)	
				Baseline to week 4 Weighted median change (IQR)	Baseline to week 24 Weighted median change (IQR)	
Change from Baseline to week post switch in SETSVDR (wk-baseline)  -ve means (better performance) at wk compared to baseline				N=39 -0.07(-0.16 to 0.11) Range: -0.33 to 0.37  P=0.241  Using weighted test for location	N=39 -0.07(-0.16 to 0.11) Range: -0.33 to 0.37  P=0.922  Using weighted test for location	

# SSAT 058: Final locked data analysis

Version 4.0: 22<sup>nd</sup> May 2018

Task code/task name		Cognitive function tested	Screen N=41	Baseline N=41	Week 4	Week 24
Attended DNA Drop out				41 0 0	40 0 1	39 0 2
<b>SETSVD R</b>  (Visual discrimination reverse)	Executive Function Accuracy of performance; Total number of errors across the five rounds Lower score = better performance	No normal population data available				
<b>SECT</b>  Social emotional cognition task	Social emotional cognition Accuracy of performance; arcsine transformation of the square root of the proportion of correct responses Higher score = better performance	No data				

# SSAT 058: Final locked data analysis

Version 4.0: 22<sup>nd</sup> May 2018

Task code/task name		Cognitive function tested	Screen N=41	Baseline N=41	Week 4	Week 24
Attended DNA Drop out				41 0 0	40 0 1	39 0 2
<b>TWOB</b>  <b>Two-back memory</b>	<b>Working memory - Complex Accuracy of performance; arcsine transformation of the square root of the proportion of correct responses</b> <b>Higher score = better performance</b>		N=39  Total=11869  1.19 (1.11 to 1.33)	N=40  Total=12219  1.27 (1.13 to 1.33)	N=40  Total=12847  1.27 (1.19 to 1.33)	N=39  Total=12756  1.33 (1.19 to 1.40)
					<b>Baseline to week 4</b> <b>Weighted median change (IQR)</b>	<b>Baseline to week 24</b> <b>Weighted median change (IQR)</b>
<b>Change from Baseline to week post switch in TWOB (wk-baseline)</b>  <b>+ve means (better performance) at wk compared to baseline</b>					N=39 0.00(-0.05 to 0.16) Range: -0.36 to 1.07  P=0.128  Using weighted test for location	N=39 0.03(-0.04 to 0.07) Range: -0.69 to 1.12  P=0.149  Using weighted test for location

SSAT 058: Final locked data analysis

Version 4.0: 22<sup>nd</sup> May 2018

Task code/task name		Cognitive function tested	Screen N=41	Baseline N=41	Week 4	Week 24
Attended DNA Drop out				41 0 0	40 0 1	39 0 2
TWOB			N=38	N=36	N=38	N=36
Two-back memory mean age adjusted z- score	-4SD	1(2.6)	1(2.8)	1(2.6)	1(2.8)	
	-3SD	1(2.6)	2(5.6)	2(5.3)	1(2.8)	
	-2SD	4(10.5)	3(8.3)	3(7.9)	0(0.0)	
	-1SD	14(36.8)	6(16.7)	5(13.2)	10(27.8)	
	Average	0(0.0)	0(0.0)	0(0.0)	0(0.0)	
	1SD	15(39.5)	20(55.6)	21(55.3)	19(52.8)	
	2SD	2(5.3)	2(5.6)	2(5.3)	2(5.6)	
	3SD	1(2.6)	2(5.6)	4(10.5)	3(8.3)	
LMN (log10 mili seconds)						
DET	Psychomotor Function Speed of performance; mean of the log10 transformed reaction times for correct responses Lower score = better performance		N=38  2.51 (2.47 to 2.64)  Range: 2.38 to 3.09	N=40  2.57 (2.46 to 2.65)  Range: 2.37 to 2.86	N=40  2.53 (2.47 to 2.61)  Range: 2.43 to 2.95	N=37  2.57 (2.47 to 2.61)  Range: 2.19 to 2.74
					Baseline to week 4 Weighted median change (IQR)	Baseline to week 24 Weighted median change (IQR)
Change from Baseline to week post switch in DET (wk-baseline)  -ve means (better performance) at wk compared to baseline					N=34 -0.01(-0.03 to 0.03) Range: -0.16 to 0.39  P=0.478  Using weighted test for location	N=32 -0.002(-0.04 to 0.05) Range: -0.16 to 0.18  P=0.609  Using weighted test for location

# SSAT 058: Final locked data analysis

Version 4.0: 22<sup>nd</sup> May 2018

DET		N=38	N=35	N=39	N=37
Detection mean age adjusted z-score	-4SD	0(0.0)	0(0.0)	0(0.0)	1(2.7)
	-3SD	0(0.0)	0(0.0)	0(0.0)	0(0.0)
	-2SD	1(2.6)	1(2.9)	0(0.0)	0(0.0)
	-1SD	15(39.5)	10(28.6)	13(33.3)	13(35.1)
	Average	0(0.0)	0(0.0)	0(0.0)	0(0.0)
	1SD	12(31.6)	11(31.4)	15(38.5)	14(37.8)
	2SD	4(10.5)	8(22.9)	8(20.5)	8(21.6)
	3SD	4(10.5)	5(14.3)	2(5.1)	1(2.7)
	4SD	1(2.6)	0(0.0)	0(0.0)	0(0.0)
	5SD	0(0.0)	0(0.0)	0(0.0)	0(0.0)
	6SD	0(0.0)	0(0.0)	1(2.6)	0(0.0)
	7SD	1(2.6)	0(0.0)	0(0.0)	0(0.0)
<b>IDN</b>  <i>Identification</i>	<b>Attention Speed of performance; mean of the log10 transformed reaction times for correct responses</b> <b>Lower score = better performance</b>	N=34  2.71 (2.67 to 2.76)  Range: 2.60 to 2.82	N=32  2.72 (2.69 to 2.81)  Range: 2.60 to 2.97	N=34  2.74 (2.69 to 2.82)  Range: 2.62 to 2.87	N=33  2.75 (2.68 to 2.81)  Range: 2.64 to 2.89
				<b>Baseline to week 4</b> <b>Weighted median change (IQR)</b>	<b>Baseline to week 24</b> <b>Weighted median change (IQR)</b>
<b>Change from Baseline to week post switch in IDN (wk-baseline)</b>  <b>-ve means (better performance) at wk compared to baseline</b>				N=31 0.01(-0.02 to 0.04) Range: -0.11 to 0.12  P=0.233  Using weighted test for location	N=30 0.01(-0.02 to 0.05) Range: -0.12 to 0.18  P=0.413  Using weighted test for location
IDN		N=34	N=32	N=34	N=33
Identification mean age adjusted	-2SD	1(2.9)	3(9.4)	3(8.8)	0(0.0)
	-1SD	10(29.4)	10(31.3)	10(29.4)	13(39.4)
	Average	0(0.0)	0(0.0)	0(0.0)	0(0.0)
	1SD	17(50.0)	10(31.3)	8(23.5)	5(15.2)



# SSAT 058: Final locked data analysis

Version 4.0: 22<sup>nd</sup> May 2018

<b>z-score</b>	2SD 3SD 4SD	6(17.7) 0(0.0) 0(0.0)	4(12.5) 4(12.5) 1(3.1)	11(32.4) 2(5.9) 0(0.0)	11(33.3) 4(12.1) 0(0.0)
<b>MPS (moves per second)</b>					
<b>GMCT</b>  Groton maze timed chase test	Speed of visual Processing The total number of correct moves made per second. Higher score = better performance	No data			
<b>TER (total number of errors made)</b>					
<b>GML</b>  Groton maze learning test	Executive Function Total number of errors made in attempting to learn the same hidden pathway on five consecutive trials at a single session Lower score = better performance	N=40  Total= 1273278  13(7 to 23)  Range: 1 to 164	N=40  Total= 1113654  11(7 to 19)  Range: 0 to 158	N=40  Total= 986198  10(6 to 17)  Range: 0 to 106	N=39  Total= 949598  10(6 to 17)  Range: 0 to 106
				<b>Baseline to week 4</b> <b>Weighted median change (IQR)</b>	<b>Baseline to week 24</b> <b>Weighted median change (IQR)</b>
Change from Baseline to week post switch in GML (wk-baseline)  -ve means (better performance) at wk compared to baseline				N=39 -3(-11 to 5) Range: -79 to 40  P=0.116  Using weighted test for	N=39 -2(-13 to 4) Range: -99 to 16  P=0.069  Using weighted test for

SSAT 058: Final locked data analysis

Version 4.0: 22<sup>nd</sup> May 2018

				location	location
<b>GML</b>		<b>N=40</b>	<b>N=40</b>	<b>N=40</b>	<b>N=39</b>
Groton maze learning test mean age adjusted z-score	-2SD -1SD Average 1SD 2SD 3SD 4SD 5SD	6(15.0) 17(42.5) 0(0.0) 9(22.5) 3(7.5) 2(5.0) 2(5.0) 1(2.5)	7(17.5) 22(55.0) 0(0.0) 6(15.0) 3(7.5) 1(2.5) 1(2.5) 0(0.0)	8(20.0) 24(60.0) 0(0.0) 4(10.0) 4(10.0) 0(0.0) 0(0.0) 0(0.0)	10(25.6) 20(51.3) 0(0.0) 6(15.4) 2(5.1) 1(2.6) 0(0.0) 0(0.0)
<b>GMR</b>	<b>Delayed recall</b>	<b>N=39</b>	<b>N=40</b>	<b>N=40</b>	<b>N=39</b>
Groton maze learning test – delayed recall	Total number of errors made in remembering the maze pathway after a delay Lower score = better performance	Total= 79389  6(4 to 10)  Range: 2 to 24	Total= 98936  8(5 to 13)  Range: 0 to 36	Total= 77325  7(4 to 9)  Range: 0 to 20	Total= 70484  5(4 to 10)  Range: 0 to 21
				<b>Baseline to week 4</b> <b>Weighted median change (IQR)</b>	<b>Baseline to week 24</b> <b>Weighted median change (IQR)</b>
<b>Change from Baseline to week post switch in GMR (wk-baseline)</b>  <b>-ve means (better performance) at wk compared to baseline</b>				N=39 -2(-4 to 1) Range: -16 to 7  P=0.013  Using weighted test for location	N=39 -3(-4 to 0) Range: -26 to 10  P=0.013  Using weighted test for location
<b>GMR</b>		<b>N=39</b>	<b>N=40</b>	<b>N=40</b>	<b>N=39</b>
Groton maze learning test – delayed recall	-2SD -1SD Average 1SD 2SD 3SD	10(25.6) 16(41.0) 0(0.0) 5(12.8) 5(12.8) 2(5.1)	7(17.5) 15(37.5) 0(0.0) 8(20.0) 6(15.0) 3(7.5)	10(25.0) 15(37.5) 0(0.0) 10(25.0) 2(5.0) 3(7.5)	12(30.8) 14(35.9) 0(0.0) 6(15.4) 5(12.8) 0(0.0)

# SSAT 058: Final locked data analysis

Version 4.0: 22<sup>nd</sup> May 2018

mean	4SD	0(0.0)	0(0.0)	0(0.0)	2(5.1)
age	5SD	1(2.6)	0(0.0)	0(0.0)	0(0.0)
adjusted	6SD	0(0.0)	1(2.5)	0(0.0)	0(0.0)
z-score					
<b>COR</b>					
ISLR	Verbal learning	No data			
International Shopping List Task	Total number of correct responses made in remembering the list after a delay Higher score = better performance				

A z-score less than 0 represents less than population mean.

A z-score greater than 0 represents greater than population the mean.

A z-score equal to 0 represents equal to the population mean.

A z-score equal to 1 represents that sample is 1 standard deviation greater than the mean; a z-score equal to 2, 2 standard deviations greater than the mean;

A z-score equal to -1 represents that sample is 1 standard deviation less than the mean; a z-score equal to -2, 2 standard deviations less than the mean; etc.

If the number of elements in the set is large, about 68% of the elements have a z-score between -1 and 1; about 95% have a z-score between -2 and 2; and about 99% have a z-score between -3 and 3.