

SnoreFree - Rhonchopathy & UARS Pilot Study - Result Report

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1. Statistical evaluation of the primary results

The following analyses refer to the Systematic User Data Evaluation plan version 1.0 of 12/28/2022. The comparison of the intervention group with the control group shows no relevant group differences. Accordingly, the randomization was successful with respect to the defined randomization strata.

The primary analyses defined in the Systematic User Data Evaluation Plan under 7.3, are cited in Chapter 3 of this document. The ITT analysis for the ESS with Reference Based Imputation with the specified ANCOVA shows a significant difference ($p < 0.001$) to the baseline-adjusted score difference (end minus beginning) of -3.097 in the intervention group and -0.542 in the control group.

ITT analysis for the ESS with Normal Imputation with the prespecified ANCOVA shows a significant difference ($p < 0.001$) to the baseline-adjusted score difference (end minus beginning) of -3.139 in the intervention group and -0.477 in the control group.

ITT analysis for the PSQI with Reference Based Imputation with the prespecified ANCOVA shows a significant difference ($p < 0.001$) to the baseline-adjusted score difference (end minus beginning) of -1.804 in the intervention group and -0.110 in the control group.

ITT analysis for the PSQI with Normal Imputation with the prespecified ANCOVA shows a significant difference ($p < 0.001$) to the baseline-adjusted score difference (end minus beginning) of -1.826 in the intervention group and -0.026 in the control group.

The responder analyses defined in the Systematic User Data Evaluation Plan in 7.5 are presented below in Chapter 5. All responder analyses are significant relative to the group (at significance level 0.05). This includes the univariate responder analyses for ESS and PSQI, as well as the logistic regressions for ESS and PSQI.

The sensitivity analyses defined in the Systematic User Data Evaluation Plan in 7.7 are presented below in Chapter 6. Since the normal distribution assumptions were confirmed, only the calculation on the Linear Mixed Models (LMM) were performed. Both LMM analyses for ESS and PSQI are significant in relation to the group ($p < 0.001$).

The evaluation of the oxygen measurements did not reveal any relevant results in the group comparison. This is to be expected, since the mean oxygen saturation at t0 (\emptyset .-aver..O2_t0) in both groups is above 95% and thus in the normal range of 95-99%. See values in chapter 7.3 " \emptyset .-average..O2_t0" in the intervention group of 95.07 and in the control group of 95.24.

2. Demographics

Table

Variable	Overall, N = 89	Intervention group, N = 43	Control group, N = 46	p-value
Age				0.688
N	89.00	43.00	46.00	
Mean (SD)	52.44 (11.99)	51.91 (11.81)	52.93 (12.27)	
Median (IQR)	55.00 (45.00, 61.00)	53.00 (44.00, 61.00)	55.50 (45.25, 61.00)	
Range	20.00, 76.00	20.00, 71.00	29.00, 76.00	
Gender				0.821
f	30 / 89 (34%)	15 / 43 (35%)	15 / 46 (33%)	
m	59 / 89 (66%)	28 / 43 (65%)	31 / 46 (67%)	
BMI				0.878
N	89.00	43.00	46.00	
Mean (SD)	25.21 (2.67)	25.26 (2.54)	25.17 (2.81)	
Median (IQR)	25.31 (23.55, 27.34)	25.53 (23.64, 26.60)	25.13 (23.26, 27.47)	
Range	19.79, 31.14	19.94, 31.14	19.79, 29.73	
Diagnosis				0.802
Snoring	84 / 89 (94%)	40 / 43 (93%)	44 / 46 (96%)	
Snoring UARS	4 / 89 (4.5%)	2 / 43 (4.7%)	2 / 46 (4.3%)	
Snorer	1 / 89 (1.1%)	1 / 43 (2.3%)	0 / 46 (0%)	
BMI.Strata				0.419
< 25	37 / 89 (42%)	16 / 43 (37%)	21 / 46 (46%)	
≥ 25	52 / 89 (58%)	27 / 43 (63%)	25 / 46 (54%)	
Age.Strata				0.889
< 40	15 / 89 (17%)	7 / 43 (16%)	8 / 46 (17%)	
≥ 40	74 / 89 (83%)	36 / 43 (84%)	38 / 46 (83%)	

3. Intention-To-Treat Analysis (ITT)

3.1. ANCOVA endpoint - Epworth Sleepiness Scale (ESS)

3.1.1 ESS Reference Based Imputation

	Estimate	Std. error	95% CI lower	95% CI upper	p-value
(Intercept)	0.045	1.141	-2.204	2.295	0.968
Score_t0	-0.324	0.132	-0.585	-0.063	0.015
Group	2.555	0.659	1.256	3.854	<0.001

	Mean	Std. error	95% CI lower	95% CI upper
Intervention group	-3.097	0.560	-4.200	-1.993
Control group	-0.542	0.395	-1.321	0.238

3.1.2 ESS Normal Imputation

	Estimate	Std. error	95% CI lower	95% CI upper	p-value
(Intercept)	-0.080	1.063	-2.177	2.016	0.940
Score_t0	-0.313	0.119	-0.548	-0.079	0.009
Group	2.663	0.610	1.460	3.865	<0.001

	Mean	Std. error	95% CI lower	95% CI upper
Intervention group	-3.139	0.551	-4.226	-2.053
Control group	-0.477	0.409	-1.283	0.330

3.2. ANCOVA endpoint - Pittsburgh Sleep Quality Index (PSQI).

3.2.1 PSQI Reference Based Imputation

	Estimate	Std. error	95% CI lower	95% CI upper	p-value
(Intercept)	1.686	0.796	0.116	3.256	0.036
Score_t0	-0.539	0.136	-0.807	-0.271	<0.001
Group	1.694	0.440	0.827	2.561	<0.001

	Mean	Std. error	95% CI lower	95% CI upper
Intervention group	-1.804	0.342	-2.479	-1.128
Control group	-0.110	0.365	-0.829	0.610

3.2.2 PSQI Normal Imputation

	Estimate	Std. error	95% CI lower	95% CI upper	p-value
(Intercept)	1.394	0.793	-0.171	2.958	0.081
Score_t0	-0.496	0.128	-0.748	-0.243	<0.001
Group	1.800	0.455	0.903	2.696	<0.001

	Mean	Std. error	95% CI lower	95% CI upper
Intervention group	-1.826	0.326	-2.470	-1.182
Control group	-0.026	0.362	-0.741	0.688

4. Per-Protocol Analysis (PP)

4.1. ANCOVA endpoint - Epworth Sleepiness Scale (ESS)

Analysis of Variance Model

	Df	Sum Sq	Mean Sq	F value	p-value
Group	1	184.4	184.4	19.06	<0.001
Score_t0	1	112	112	11.58	<0.001
Residuals	81	783.5	9.673		

Group	Mean	SE	lower.CL	upper.CL
Intervention group	-3.182	0.499	-4.175	-2.190
Control group	-0.398	0.464	-1.321	0.526

4.2. ANCOVA endpoint - Pittsburgh Sleep Quality Index (PSQI).

Analysis of Variance Model

	Df	Sum Sq	Mean Sq	F value	p-value
Group	1	76.72	76.72	15.87	<0.001
Score_t0	1	104.6	104.6	21.64	<0.001
Residuals	81	391.7	4.835		

Group	Mean	SE	lower.CL	upper.CL
Intervention group	-1.777	0.353	-2.479	-1.076
Control group	-0.037	0.328	-0.691	0.616

5. Responder Analysis

5.1. Endpoint - Epworth Sleepiness Scale (ESS)

Table

Variable	Overall, N = 89	Intervention group, N = 43	Control group, N = 46	p-value
Responder				0.001
Yes	38 / 84 (45%)	25 / 39 (64%)	13 / 45 (29%)	
No	46 / 84 (55%)	14 / 39 (36%)	32 / 45 (71%)	
Unknown	5	4	1	

5.2. Endpoint - Pittsburgh Sleep Quality Index (PSQI).

Table

Variable	Overall, N = 89	Intervention group, N = 43	Control group, N = 46	p-value
Responder				0.021
Yes	32 / 84 (38%)	20 / 39 (51%)	12 / 45 (27%)	
No	52 / 84 (62%)	19 / 39 (49%)	33 / 45 (73%)	
Unknown	5	4	1	

5.3. Logistic regression - Epworth Sleepiness Scale (ESS)

var	OR	lower OR 95%-CI	upper OR 95%-CI	p-value
(Intercept)	0.318	0.034	2.938	0.313
Age	0.997	0.959	1.037	0.895
Gender:m	2.920	1.078	7.914	0.035
Group:Control group	4.458	1.723	11.531	0.002

5.4. Logistic Regression - Pittsburgh Sleep Quality Index (PSQI)

var	OR	lower OR 95%-CI	upper OR 95%-CI	p-value
(Intercept)	1.567	0.178	13.796	0.685
Age	0.983	0.946	1.022	0.390
Gender:m	1.859	0.714	4.841	0.204
Group:Control group	2.883	1.141	7.283	0.025

6. Linear Mixed Models

Endpoint - Epworth Sleepiness Scale (ESS)

	coefficients	sigma	tstat	p-value
(Intercept)	0.972	0.602	1.613	0.107
score_t0	0.808	0.051	15.967	<0.001
Group	1.454	0.390	3.732	<0.001
time	-0.850	0.164	-5.194	<0.001

Endpoint - Pittsburgh Sleep Quality Index (PSQI)

	coefficients	sigma	tstat	p-value
(Intercept)	1.331	0.445	2.988	0.003
score_t0	0.711	0.059	12.024	<0.001
Group	0.882	0.253	3.490	<0.001
time	-0.426	0.116	-3.680	<0.001

7. Descriptive statistics

7.1. Descriptive statistics - Epworth Sleepiness Scale (ESS)

Table

Variable	Overall, N = 89	Intervention group, N = 43	Control group, N = 46	p-value
Score_t0				0.545
N	86.00	40.00	46.00	
Mean (SD)	9.70 (3.86)	9.98 (4.38)	9.46 (3.37)	
Median (IQR)	9.00 (7.00, 11.00)	9.00 (7.00, 11.25)	9.00 (7.00, 11.00)	
Range	1.00, 20.00	1.00, 20.00	3.00, 18.00	
Unknown	3	3	0	
Score_t2				0.012
N	84.00	39.00	45.00	
Mean (SD)	7.95 (4.26)	6.69 (4.39)	9.04 (3.86)	
Median (IQR)	8.00 (5.00, 11.00)	6.00 (4.00, 10.00)	8.00 (7.00, 12.00)	
Range	0.00, 21.00	0.00, 21.00	2.00, 20.00	
Unknown	5	4	1	
Score_Difference_t2_t0				<0.001
N	84.00	39.00	45.00	
Mean (SD)	-1.69 (3.61)	-3.28 (4.12)	-0.31 (2.38)	
Median (IQR)	-1.00 (-4.00, 1.00)	-3.00 (-5.00, -1.00)	0.00 (-2.00, 1.00)	
Range	-16.00, 5.00	-16.00, 4.00	-5.00, 5.00	
Unknown	5	4	1	

7.2. Descriptive Statistics - Pittsburgh Sleep Quality Index (PSQI)

Table

Variable	Overall, N = 89	Intervention group, N = 43	Control group, N = 46	p-value
Score_t0				0.770
N	86.00	40.00	46.00	
Mean (SD)	6.48 (2.16)	6.55 (2.06)	6.41 (2.27)	
Median (IQR)	6.00 (5.00, 8.00)	7.00 (5.00, 8.00)	6.00 (5.00, 8.00)	
Range	2.00, 13.00	3.00, 13.00	2.00, 12.00	
Unknown	3	3	0	
Score_t2				0.003
N	84.00	39.00	45.00	
Mean (SD)	5.60 (2.50)	4.74 (2.21)	6.33 (2.53)	
Median (IQR)	5.00 (4.00, 7.00)	4.00 (3.00, 6.00)	6.00 (5.00, 8.00)	
Range	0.00, 14.00	0.00, 10.00	2.00, 14.00	
Unknown	5	4	1	
Score_Difference_t2_t0				<0.001
N	84.00	39.00	45.00	
Mean (SD)	-0.85 (2.63)	-1.87 (2.56)	0.04 (2.37)	
Median (IQR)	-1.00 (-2.00, 1.00)	-2.00 (-3.00, -0.50)	0.00 (-2.00, 1.00)	
Range	-11.00, 9.00	-11.00, 2.00	-3.00, 9.00	
Unknown	5	4	1	

7.3. Descriptive statistics - oxygen measurements

Table

Variable	Overall, N = 89	Intervention group, N = 43	Control group, N = 46	p-value
Ø-average O2_t0				0.135
N	83.00	40.00	43.00	
Mean (SD)	95.63 (1.32)	95.85 (1.14)	95.42 (1.45)	
Median (IQR)	96.00 (95.00, 97.00)	96.00 (95.00, 97.00)	96.00 (94.50, 96.00)	
Range	90.00, 98.00	92.00, 98.00	90.00, 97.00	
Unknown	6	3	3	
O2-Value_t0				0.347
N	85.00	40.00	45.00	
Mean (SD)	9.36 (1.30)	9.50 (0.74)	9.24 (1.65)	
Median (IQR)	9.80 (9.40, 9.90)	9.85 (9.55, 9.90)	9.80 (9.10, 9.90)	
Range	0.00, 10.00	7.10, 10.00	0.00, 10.00	
Unknown	4	3	1	
How often drops by >4% throughout the night_t0				0.151
N	86.00	40.00	46.00	
Mean (SD)	11.88 (31.95)	6.83 (13.28)	16.28 (41.63)	
Median (IQR)	2.00 (0.00, 10.50)	2.00 (0.00, 6.75)	2.00 (0.00, 11.00)	
Range	0.00, 255.00	0.00, 73.00	0.00, 255.00	
Unknown	3	3	0	
Decreases >4% per hour_t0				0.454
N	86.00	40.00	46.00	
Mean (SD)	1.77 (4.99)	1.35 (4.14)	2.14 (5.64)	
Median (IQR)	0.22 (0.00, 1.50)	0.20 (0.00, 1.20)	0.30 (0.00, 1.50)	
Range	0.00, 35.50	0.00, 25.90	0.00, 35.50	

Variable	Overall, N = 89	Intervention group, N = 43	Control group, N = 46	p-value
Unknown	3	3	0	
How often drops by >3% throughout the night_t0				0.138
N	86.00	40.00	46.00	
Mean (SD)	18.66 (37.17)	12.55 (19.57)	23.98 (47.07)	
Median (IQR)	6.00 (1.00, 22.00)	5.50 (1.00, 17.25)	7.50 (1.25, 23.75)	
Range	0.00, 255.00	0.00, 108.00	0.00, 255.00	
Unknown	3	3	0	
decreases >3% per hour_t0				0.528
N	86.00	40.00	46.00	
Mean (SD)	2.77 (6.13)	2.32 (6.06)	3.16 (6.23)	
Median (IQR)	0.80 (0.20, 2.88)	0.75 (0.18, 2.38)	0.90 (0.20, 3.00)	
Range	0.00, 38.30	0.00, 38.30	0.00, 35.50	
Unknown	3	3	0	
_the seconds of oxygen saturation.<90%_t0_				0.190
N	86.00	40.00	46.00	
Mean (SD)	231.92 (1,232.14)	55.68 (135.19)	385.17 (1,673.37)	
Median (IQR)	10.00 (0.00, 47.50)	10.00 (0.00, 19.50)	10.00 (0.00, 83.00)	
Range	0.00, 11,210.00	0.00, 552.00	0.00, 11,210.00	
Unknown	3	3	0	
How much of the sleep time<90%oxygen saturation_t0				0.210
N	86.00	40.00	46.00	
Mean (SD)	0.86 (4.84)	0.19 (0.47)	1.43 (6.59)	
Median (IQR)	0.00 (0.00, 0.10)	0.00 (0.00, 0.10)	0.00 (0.00, 0.10)	

Variable	Overall, N = 89	Intervention group, N = 43	Control group, N = 46	p-value
Range	0.00, 44.20	0.00, 2.00	0.00, 44.20	
Unknown	3	3	0	
__the seconds of oxygen saturation.90-94%_t0__				0.262
N	86.00	40.00	46.00	
Mean (SD)	5,310.41 (7,009.40)	4,408.35 (6,291.95)	6,094.80 (7,559.23)	
Median (IQR)	1,701.00 (195.50, 9,077.00)	1,536.00 (234.50, 5,272.50)	2,195.00 (151.00, 11,875.50)	
Range	0.00, 24,004.00	0.00, 22,680.00	0.00, 24,004.00	
Unknown	3	3	0	
How much of the sleep time90-94%oxygen saturation_t0				0.343
N	86.00	40.00	46.00	
Mean (SD)	19.59 (24.57)	16.91 (22.81)	21.93 (26.04)	
Median (IQR)	5.98 (1.00, 34.65)	5.98 (1.45, 26.50)	6.15 (1.00, 45.10)	
Range	0.00, 94.00	0.00, 94.00	0.00, 74.00	
Unknown	3	3	0	
Ø-average O2_t2				0.194
N	82.00	39.00	43.00	
Mean (SD)	95.66 (1.26)	95.85 (1.04)	95.49 (1.42)	
Median (IQR)	96.00 (95.00, 97.00)	96.00 (95.00, 96.50)	96.00 (94.50, 97.00)	
Range	92.00, 98.00	94.00, 98.00	92.00, 97.00	
Unknown	7	4	3	
O2-Value_t2				0.994
N	82.00	39.00	43.00	
Mean (SD)	9.23 (1.39)	9.23 (1.04)	9.23 (1.65)	

Variable	Overall, N = 89	Intervention group, N = 43	Control group, N = 46	p-value
Median (IQR)	9.80 (8.90, 9.90)	9.60 (8.75, 9.90)	9.90 (9.45, 9.90)	
Range	0.00, 10.00	5.30, 10.00	0.00, 10.00	
Unknown	7	4	3	
How often drops by >4% throughout the night_t2				0.327
N	82.00	39.00	43.00	
Mean (SD)	10.16 (28.98)	6.97 (9.02)	13.05 (39.09)	
Median (IQR)	2.00 (0.00, 13.00)	2.00 (0.00, 14.00)	2.00 (0.00, 10.50)	
Range	0.00, 255.00	0.00, 35.00	0.00, 255.00	
Unknown	7	4	3	
Decreases >4% per hour_t2				0.483
N	82.00	39.00	43.00	
Mean (SD)	1.45 (3.91)	1.15 (1.83)	1.74 (5.13)	
Median (IQR)	0.39 (0.00, 1.80)	0.38 (0.00, 1.90)	0.40 (0.00, 1.46)	
Range	0.00, 33.38	0.00, 9.73	0.00, 33.38	
Unknown	7	4	3	
How often drops by >3% throughout the night_t2				0.505
N	82.00	39.00	43.00	
Mean (SD)	17.85 (32.33)	15.41 (19.57)	20.07 (40.72)	
Median (IQR)	7.00 (2.00, 22.00)	5.00 (3.00, 22.00)	7.00 (1.00, 21.50)	
Range	0.00, 255.00	0.00, 84.00	0.00, 255.00	
Unknown	7	4	3	
decreases >3% per hour_t2				0.893
N	82.00	39.00	43.00	
Mean (SD)	2.62 (4.79)	2.55 (4.21)	2.69 (5.31)	

Variable	Overall, N = 89	Intervention group, N = 43	Control group, N = 46	p-value
Median (IQR)	1.12 (0.30, 2.94)	1.04 (0.35, 3.30)	1.20 (0.15, 2.90)	
Range	0.00, 33.38	0.00, 23.35	0.00, 33.38	
Unknown	7	4	3	
__the seconds of oxygen saturation.<90%_t2__				0.167
N	85.00	39.00	46.00	
Mean (SD)	165.67 (700.28)	59.03 (157.94)	256.09 (936.01)	
Median (IQR)	0.00 (0.00, 42.00)	4.00 (0.00, 43.00)	0.00 (0.00, 39.50)	
Range	0.00, 5,946.00	0.00, 877.00	0.00, 5,946.00	
Unknown	4	4	0	
How much of the sleep time<90%oxygen saturation_t2				0.185
N	83.00	39.00	44.00	
Mean (SD)	0.66 (2.69)	0.26 (0.82)	1.01 (3.59)	
Median (IQR)	0.00 (0.00, 0.11)	0.00 (0.00, 0.08)	0.00 (0.00, 0.15)	
Range	0.00, 22.06	0.00, 4.00	0.00, 22.06	
Unknown	6	4	2	
__the seconds of oxygen saturation.90-94%_t2__				0.224
N	85.00	39.00	46.00	
Mean (SD)	4,531.21 (6,109.71)	3,682.26 (4,549.38)	5,250.98 (7,144.81)	
Median (IQR)	1,544.00 (282.00, 6,986.00)	1,550.00 (503.00, 4,965.00)	1,319.00 (175.50, 10,546.50)	
Range	0.00, 22,390.00	0.00, 16,501.00	0.00, 22,390.00	
Unknown	4	4	0	
How much of the sleep time90-94%oxygen saturation_t2				0.162

Variable	Overall, N = 89	Intervention group, N = 43	Control group, N = 46	p-value
N	83.00	39.00	44.00	
Mean (SD)	18.36 (23.62)	14.60 (16.95)	21.69 (28.04)	
Median (IQR)	6.44 (1.68, 27.00)	7.59 (2.19, 19.97)	6.22 (1.00, 43.75)	
Range	0.00, 91.00	0.00, 57.02	0.00, 91.00	
Unknown	6	4	2	
Ø-average O2_Difference_t2_t0				0.613
N	80.00	39.00	41.00	
Mean (SD)	-0.05 (0.86)	0.00 (0.86)	-0.10 (0.86)	
Median (IQR)	0.00 (-0.25, 0.00)	0.00 (0.00, 0.00)	0.00 (-1.00, 0.00)	
Range	-3.00, 2.00	-3.00, 2.00	-2.00, 2.00	
Unknown	9	4	5	
O2-Value_Difference_t2_t0				0.117
N	81.00	39.00	42.00	
Mean (SD)	0.14 (0.95)	0.32 (1.06)	-0.02 (0.82)	
Median (IQR)	0.00 (-0.10, 0.30)	0.00 (-0.10, 0.50)	0.00 (-0.10, 0.20)	
Range	-3.10, 4.70	-1.50, 4.70	-3.10, 1.40	
Unknown	8	4	4	
How often drops by >4% throughout the night_Difference_t2_t0				0.169
N	82.00	39.00	43.00	
Mean (SD)	1.89 (16.25)	-0.64 (9.86)	4.19 (20.25)	
Median (IQR)	0.00 (-2.00, 2.00)	0.00 (-2.00, 2.00)	0.00 (-3.00, 2.00)	
Range	-30.00, 85.00	-22.00, 38.00	-30.00, 85.00	
Unknown	7	4	3	

Variable	Overall, N = 89	Intervention group, N = 43	Control group, N = 46	p-value
Decreases >4% per hour_Difference_t2_t0				0.492
N	82.00	39.00	43.00	
Mean (SD)	0.32 (2.64)	0.11 (2.84)	0.52 (2.47)	
Median (IQR)	0.00 (-0.43, 0.28)	-0.05 (-0.30, 0.15)	0.00 (-0.55, 0.30)	
Range	-3.40, 16.17	-3.40, 16.17	-3.39, 9.80	
Unknown	7	4	3	
How often drops by >3% throughout the night_Difference_t2_t0				0.108
N	82.00	39.00	43.00	
Mean (SD)	1.13 (23.77)	-3.18 (13.54)	5.05 (29.84)	
Median (IQR)	0.00 (-6.00, 3.00)	-1.00 (-7.00, 2.50)	0.00 (-5.00, 4.00)	
Range	-67.00, 114.00	-42.00, 24.00	-67.00, 114.00	
Unknown	7	4	3	
decreases >3% per hour_Difference_t2_t0				0.238
N	82.00	39.00	43.00	
Mean (SD)	0.17 (3.37)	-0.29 (3.08)	0.59 (3.60)	
Median (IQR)	-0.08 (-0.78, 0.50)	-0.23 (-0.97, 0.30)	0.00 (-0.70, 0.55)	
Range	-7.59, 14.95	-5.70, 14.95	-7.59, 13.51	
Unknown	7	4	3	
_the seconds of oxygen saturation.<90%_Difference_t2_t0_				0.310
-				
N	85.00	39.00	46.00	
Mean (SD)	66.20 (662.14)	-7.97 (193.59)	129.09 (882.01)	

Variable	Overall, N = 89	Intervention group, N = 43	Control group, N = 46	p-value
Median (IQR)	0.00 (-6.00, 10.00)	0.00 (-14.00, 10.00)	0.00 (-1.50, 14.50)	
Range	-1,894.00, 5,264.00	-877.00, 552.00	-1,894.00, 5,264.00	
Unknown	4	4	0	
How much of the sleep time<90%oxygen saturation_Difference_t2_t0				0.319
N	83.00	39.00	44.00	
Mean (SD)	0.22 (2.78)	-0.09 (0.93)	0.49 (3.72)	
Median (IQR)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	
Range	-8.00, 22.14	-4.00, 2.00	-8.00, 22.14	
Unknown	6	4	2	
_the seconds of oxygen saturation.90-94%_Difference_t2_t0_				0.947
N	85.00	39.00	46.00	
Mean (SD)	814.25 (4,416.97)	779.36 (4,669.44)	843.83 (4,243.12)	
Median (IQR)	46.00 (-540.00, 1,494.00)	76.00 (-616.50, 1,590.50)	45.00 (-441.50, 1,419.00)	
Range	-14,701.00, 14,684.00	-14,701.00, 14,684.00	-8,362.00, 12,424.00	
Unknown	4	4	0	
How much of the sleep time90-94%oxygen saturation_Difference_t2_t0				0.732
N	83.00	39.00	44.00	
Mean (SD)	1.75 (16.80)	2.43 (18.19)	1.14 (15.66)	
Median (IQR)	0.00 (-3.00, 3.79)	0.00 (-2.63, 3.29)	0.00 (-3.25, 6.08)	
Range	-50.44, 75.00	-50.44, 75.00	-41.00, 44.64	
Unknown	6	4	2	