|  |  |
| --- | --- |
|  | **Zmachine® Synergy**  **Home Sleep Test Report** |

| **Patient Demographics** | | | |
| --- | --- | --- | --- |
| Patient Name | [[PATIENT\_FIRST\_NAME]] [[PATIENT\_LAST\_NAME]] | DOB | [[PATIENT\_DATE\_OF\_BIRTH]] |
| Study Date | [[LIGHTS\_OFF\_DATE]] | Study Type | Diagnostic |
| Sex | [[PATIENT\_SEX]] | Height | [[PATIENT\_HEIGHT]] [[PATIENT\_HEIGHT\_UNITS]] |
| Age | [[PATIENT\_AGE]] | Weight | [[PATIENT\_WEIGHT]] [[PATIENT\_WEIGHT\_UNITS]] |
| Referring Physician | [[REFERRING\_PHYSICIAN]] | BMI | [[PATIENT\_BMI]] |
| Scoring Technician | [[SCORER\_NAME]] | Study ID | [[STUDY\_ID]] |

| **Study Details** |
| --- |
| The following parameters were recorded using a Zmachine Synergy (General Sleep Corporation): EEG for sleep staging & arousals; respiratory inductance plethysmography for thoracic respiratory effort; pressure transducer for respiratory airflow & snore; pulse oximeter for SpO2, pulse, & optical plethysmograph; and tri-axis accelerometer for body position. Hypopneas were scored per AASM recommended definition of [[SCORED\_DESATURATION\_THRESHOLD]]% desaturation. |

| **Times and Durations** | |
| --- | --- |
| Lights Off | [[LIGHTS\_OFF]] |
| Lights On | [[LIGHTS\_ON]] |
| Total Recording Time (TRT) | [[TRT]] min. |
| Time in Bed (TIB) | [[TIB]] min. ([[TIB\_of\_TRT]]% of TRT), [[TIB\_HR]] hours [[TIB\_MIN]] minutes |
| Total Sleep Time (TST) | [[TST]] min. ([[TST\_of\_TIB]]% of TIB) |
| Sleep Efficiency (SE) | [[SE]] % of TIB |
| **Apnea Hypopnea Index (AHI)** | **[[TST\_AH]] (#/hr)** |
| Respiratory Disturbance Index (RDI) | [[TST\_TOTAL]] (#/hr) |
| Respiratory Event Index (REI) | [[TIB\_TOTAL]] (#/hr) |
| SpO2 < 89% (cumulative time) | [[SPO2\_89\_TIB]] min. |
| SpO2 < 89% (longest span) | [[LONGEST\_CONTIGUOUS\_SPO2\_LESS\_89]] min. |
| Snoring | [[TDS\_SLEEP]] min. ([[PS\_SLEEP]]%) of TST |

TRT is the total duration of the recording; TIB is the elapsed time from lights off to lights on; TST is the cumulative time scored as any stage of sleep; SE is 100×(TST÷TIB) expressed as a percentage; AHI is apneas + hypopneas per hour of TST; RDI is apneas + hypopneas + RERAs per hour of TST; and REI is apneas + hypopneas + RERAs per hour of TIB.

| **Respiratory Event Summary** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | CA | OA | MA | H | A+H | RERA | Total |
| Total Number | [[TN\_CA]] | [[TN\_OA]] | [[TN\_MA]] | [[TN\_H]] | [[TN\_AH]] | [[TN\_RERA]] | [[TN\_TOTAL]] |
| Avg. Duration(s) | [[AVG\_DUR\_CA]] | [[AVG\_DUR\_OA]] | [[AVG\_DUR\_MA]] | [[AVG\_DUR\_H]] | [[AVG\_DUR\_AH]] | [[AVG\_DUR\_RERA]] | [[AVG\_DUR\_TOTAL]] |
| Max Duration(s) | [[MAX\_DUR\_CA]] | [[MAX\_DUR\_OA]] | [[MAX\_DUR\_MA]] | [[MAX\_DUR\_H]] | [[MAX\_DUR\_AH]] | [[MAX\_DUR\_RERA]] | [[MAX\_DUR\_TOTAL]] |

| **Respiratory Event Index (#/hr)** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | CA | OA | MA | H | A+H | RERA | Total |
| **TIB**  [[TIB]] min. | [[TIB\_CA]] | [[TIB\_OA]] | [[TIB\_MA]] | [[TIB\_H]] | [[TIB\_AH]] | [[TIB\_RERA]] | [[TIB\_TOTAL]] |

| **Respiratory Event Index by Sleep Stage (#/hr)** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | CA | OA | MA | H | A+H | RERA | Total |
| **TST**  [[TST]] min. | [[SE]] % of TIB | [[TST\_CA]] | [[TST\_OA]] | [[TST\_MA]] | [[TST\_H]] | [[TST\_AH]] | [[TST\_RERA]] | [[TST\_TOTAL]] |
| **NREM**  [[TNREMT]] min. | [[TNREM\_of\_TST]]% of TST | [[NREM\_CA]] | [[NREM\_OA]] | [[NREM\_MA]] | [[NREM\_H]] | [[NREM\_AH]] | [[NREM\_RERA]] | [[NREM\_TOTAL]] |
| **REM**  [[TREMT]]min. | [[TREM\_of\_TST]]% of TST | [[REM\_CA]] | [[REM\_OA]] | [[REM\_MA]] | [[REM\_H]] | [[REM\_AH]] | [[REM\_RERA]] | [[REM\_TOTAL]] |

| **Respiratory Event Index by Body Position (#/hr)** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | CA | OA | MA | H | A+H | RERA | Total |
| **Supine**  [[SUPINE\_DUR]] min. | [[SUPINE\_of\_TIB]]% | [[SUPINE\_CA]] | [[SUPINE\_OA]] | [[SUPINE\_MA]] | [[SUPINE\_H]] | [[SUPINE\_AH]] | [[SUPINE\_RERA]] | [[SUPINE\_TOTAL]] |
| **Prone**  [[PRONE\_DUR]] min. | [[PRONE\_of\_TIB]]% | [[PRONE\_CA]] | [[PRONE\_OA]] | [[PRONE\_MA]] | [[PRONE\_H]] | [[PRONE\_AH]] | [[PRONE\_RERA]] | [[PRONE\_TOTAL]] |
| **Left**  [[LEFT\_DUR]] min. | [[LEFT\_of\_TIB]]% | [[LEFT\_CA]] | [[LEFT\_OA]] | [[LEFT\_MA]] | [[LEFT\_H]] | [[LEFT\_AH]] | [[LEFT\_RERA]] | [[LEFT\_TOTAL]] |
| **Right**  [[RIGHT\_DUR]] min. | [[RIGHT\_of\_TIB]]% | [[RIGHT\_CA]] | [[RIGHT\_OA]] | [[RIGHT\_MA]] | [[RIGHT\_H]] | [[RIGHT\_AH]] | [[RIGHT\_RERA]] | [[RIGHT\_TOTAL]] |

| **Oximeter Summary** | | | | |
| --- | --- | --- | --- | --- |
|  | SLEEP | NREM | REM | TIB |
| Average SpO2 | [[AVG\_SPO2\_SLEEP]]% | [[AVG\_SPO2\_NREM]]% | [[AVG\_SPO2\_REM]]% | [[AVG\_SPO2\_TIB]]% |
| Total # Desats. | [[TOTAL\_DESATS\_SLEEP]] desats | [[TOTAL\_DESATS\_NREM]] desats | [[TOTAL\_DESATS\_REM]] desats | [[TOTAL\_DESATS\_TIB]] desats |
| Desat Index (#/hr.) | [[DESAT\_INDEX\_SLEEP]] desats/hr | [[DESAT\_INDEX\_NREM]] desats/hr | [[DESAT\_INDEX\_REM]] desats/hr | [[DESAT\_INDEX\_TIB]] desats/hr |
| Min. SpO2 | [[MIN\_SPO2\_SLEEP]]% | [[MIN\_SPO2\_NREM]]% | [[MIN\_SPO2\_REM]]% | [[MIN\_SPO2\_TIB]]% |
| Dur. of Min. SpO2 | [[DUR\_MIN\_SPO2\_SLEEP]] sec. | [[DUR\_MIN\_SPO2\_NREM]] sec. | [[DUR\_MIN\_SPO2\_REM]] sec. | [[DUR\_MIN\_SPO2\_TIB]] sec. |
| Max SpO2 | [[MAX\_SPO2\_SLEEP]]% | [[MAX\_SPO2\_NREM]]% | [[MAX\_SPO2\_REM]]% | [[MAX\_SPO2\_TIB]]% |
| Dur. of Max SpO2 | [[DUR\_MAX\_SPO2\_SLEEP]] sec. | [[DUR\_MAX\_SPO2\_NREM]] sec. | [[DUR\_MAX\_SPO2\_REM]] sec. | [[DUR\_MAX\_SPO2\_TIB]] sec. |
| <95% | [[SPO2\_95\_SLEEP]] min. | [[SPO2\_95\_NREM]] min. | [[SPO2\_95\_REM]] min. | [[SPO2\_95\_TIB]] min. |
| <90% | [[SPO2\_90\_SLEEP]] min. | [[SPO2\_90\_NREM]] min. | [[SPO2\_90\_REM]] min. | [[SPO2\_90\_TIB]] min. |
| <85% | [[SPO2\_85\_SLEEP]] min. | [[SPO2\_85\_NREM]] min. | [[SPO2\_85\_REM]] min. | [[SPO2\_85\_TIB]] min. |
| <80% | [[SPO2\_80\_SLEEP]] min. | [[SPO2\_80\_NREM]] min. | [[SPO2\_80\_REM]] min. | [[SPO2\_80\_TIB]] min. |
| <75% | [[SPO2\_75\_SLEEP]] min. | [[SPO2\_75\_NREM]] min. | [[SPO2\_75\_REM]] min. | [[SPO2\_75\_TIB]] min. |
| <70% | [[SPO2\_70\_SLEEP]] min. | [[SPO2\_70\_NREM]] min. | [[SPO2\_70\_REM]] min. | [[SPO2\_70\_TIB]] min. |
| <60% | [[SPO2\_60\_SLEEP]] min. | [[SPO2\_60\_NREM]] min. | [[SPO2\_60\_REM]] min. | [[SPO2\_60\_TIB]] min. |
| < 50% | [[SPO2\_50\_SLEEP]] min. | [[SPO2\_50\_NREM]] min. | [[SPO2\_50\_REM]] min. | [[SPO2\_50\_TIB]] min. |
| No Signal/Artifact | [[NO\_SIGNAL\_SLEEP]] min. | [[NO\_SIGNAL\_NREM]] min. | [[NO\_SIGNAL\_REM]] min. | [[NO\_SIGNAL\_TIB]] min. |

| **Heart Rate Summary** | | | | |
| --- | --- | --- | --- | --- |
|  | SLEEP | NREM | REM | TIB |
| Mean HR | [[MEAN\_HR\_SLEEP]] bpm | [[MEAN\_HR\_NREM]] bpm | [[MEAN\_HR\_REM]] bpm | [[MEAN\_HR\_TIB]] bpm |
| Highest HR | [[HIGHEST\_HR\_SLEEP]] bpm | [[HIGHEST\_HR\_NREM]] bpm | [[HIGHEST\_HR\_REM]] bpm | [[HIGHEST\_HR\_TIB]] bpm |
| Lowest HR | [[LOWEST\_HR\_SLEEP]] bpm | [[LOWEST\_HR\_NREM]] bpm | [[LOWEST\_HR\_REM]] bpm | [[LOWEST\_HR\_TIB]] bpm |

[[full\_night\_respiratory]]

**Summary of Respiratory Signals**

[[full\_night\_events\_with\_RERA]]

**Summary of Respiratory Events**

[[full\_night\_eeg\_and\_staging]]

**Summary of EEG and Sleep Staging**