# **Individual Sleep Analysis Report**

## Subject ID: 55 | Healthy Control Study

Analysis Date: August 16, 2025 | Nights Analyzed: 2 | Report Generated by: Sleep-EDF Analysis System

### **Subject Information**

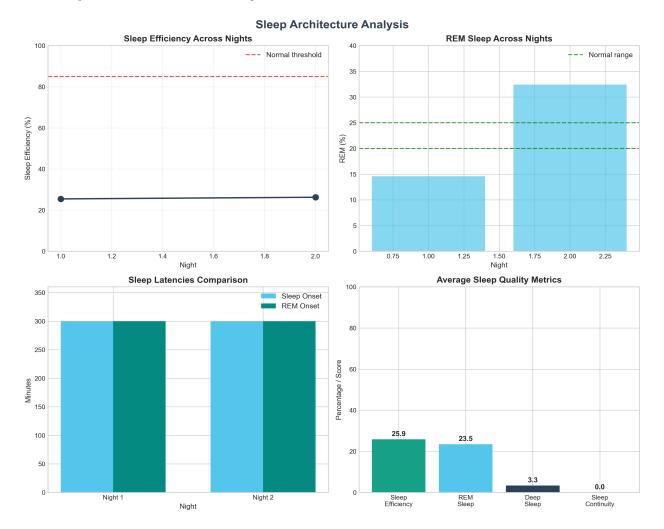
Subject ID	55
Age	71 years
Sex	M
Study Type	Healthy Controls
Number of Nights	2
Recording Dates	Multiple nights

### **Executive Summary**

This report presents a comprehensive analysis of 2 night polysomnographic recordings for Subject 55, a 71-year-old M participant from the Sleep Cassette (healthy controls) study under nan condition.

Metric	Value	Clinical Interpretation
Sleep Efficiency	25.9%	Below Normal (<85%)
Sleep Latency	434.5 min	Prolonged (>30min)
REM Latency	508.8 min	Atypical
REM Sleep	23.5%	Normal (20-25%)
Wake After Sleep Onset	588.8 min	Elevated (>30min)

## **Sleep Architecture Analysis**

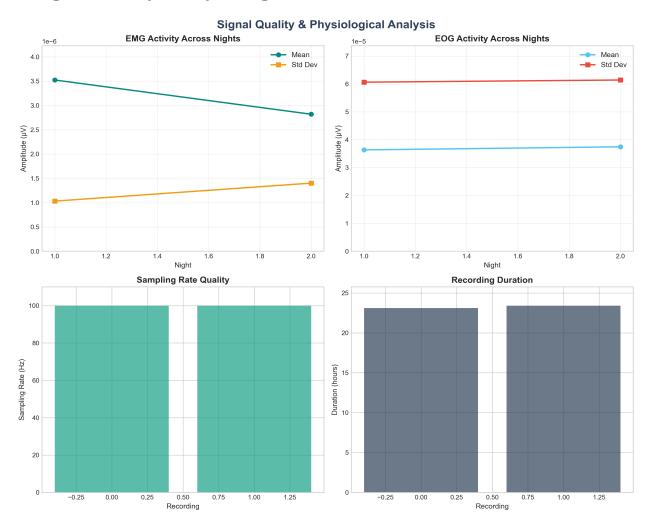


Neurophysiological Analysis - EEG Power Spectrum

#### **EEG Power Spectral Analysis**



## **Signal Quality & Physiological Assessment**



**Population Comparative Analysis** 

#### **Comparative Population Analysis** Sleep Efficiency (%) REM Sleep (%) ★ Subject Healthy Controls Sleep Difficulty Sleep Difficulty Healthy Controls WASO (min) Sleep Latency (min) Ö

Healthy Controls

Sleep Difficulty

Healthy Controls

### **Clinical Interpretation & Recommendations**

#### **Overall Sleep Health Assessment**

Sleep Quality Level: POOR

Poor sleep quality with multiple metrics outside normal ranges. The subject's sleep architecture shows:

• Sleep Efficiency: 25.9% (Below normal)

REM Sleep: 23.5% (Normal)Deep Sleep: 3.3% (Reduced)

• Sleep Continuity: Fragmented (WASO: 588.8 min)

#### **Key Findings**

- **Reduced Sleep Efficiency**: At 25.9%, sleep efficiency is below the normal threshold of 85%, indicating potential sleep quality issues.
- **Normal REM Sleep**: REM sleep comprises 23.5% of total sleep, which is within the normal range.
- **Reduced Deep Sleep**: Deep sleep stages (N3+N4) comprise 3.3% of sleep, which may indicate reduced sleep restoration.

#### Recommendations

- Consider sleep hygiene counseling and evaluation of factors affecting sleep quality
- Assess sleep environment and factors that may be disrupting deep sleep stages
- Investigation of factors causing sleep fragmentation may be beneficial

#### Report Analysis and Generation:

Report Analysed and created by the following students of IIIT Allahabad,
Part of Big Data Analytics Course:

- Aditya Singh Mertia (IIT2022125) [iit2022125@iiita.ac.in]
  - Rishabh Kumar (IIT2022131) [iit2022131@iiita.ac.in]
    - Karan Singh (IIT2022132) [iit2022132@iiita.ac.in]
  - Tejas Sharma (IIT2022161) [iit2022161@iiita.ac.in]

Report Version: 1.0 | Generated: August 16, 2025 at 09:00 PM