# **Individual Sleep Analysis Report**

## Subject ID: 16 | Healthy Control Study

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

### **Subject Information**

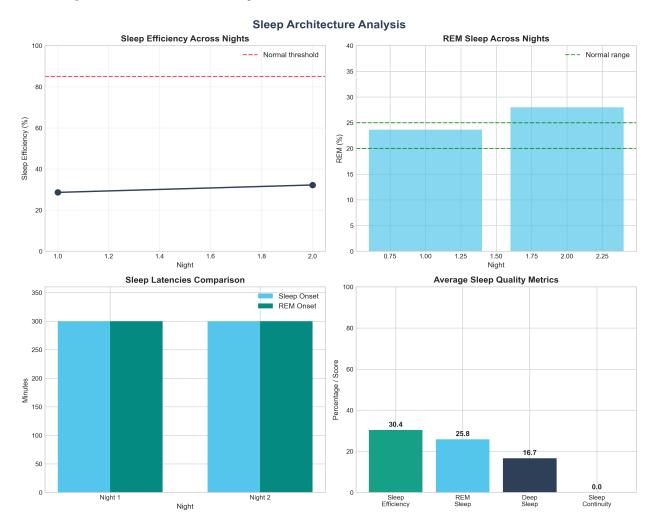
| Subject ID       | 16               |
|------------------|------------------|
| Age              | 32 years         |
| Sex              | M                |
| Study Type       | Healthy Controls |
| Number of Nights | 2                |
| Recording Dates  | Multiple nights  |

### **Executive Summary**

This report presents a comprehensive analysis of 2 night polysomnographic recordings for Subject 16, a 32-year-old M participant from the Sleep Cassette (healthy controls) study under nan condition.

| Metric                 | Value     | Clinical Interpretation |
|------------------------|-----------|-------------------------|
| Sleep Efficiency       | 30.4%     | Below Normal (<85%)     |
| Sleep Latency          | 448.2 min | Prolonged (>30min)      |
| REM Latency            | 522.5 min | Atypical                |
| REM Sleep              | 25.8%     | Atypical                |
| Wake After Sleep Onset | 456.5 min | Elevated (>30min)       |

## **Sleep Architecture Analysis**

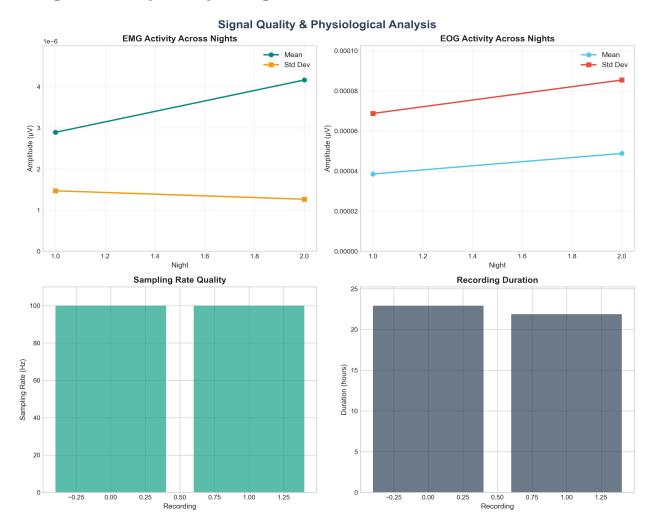


Neurophysiological Analysis - EEG Power Spectrum

#### **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)

Healthy Controls

Healthy Controls

Sleep Difficulty

#### **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: 30.4% (Below normal)

REM Sleep: 25.8% (Atypical)Deep Sleep: 16.7% (Adequate)

• Sleep Continuity: Fragmented (WASO: 456.5 min)

#### **Key Findings**

- **Reduced Sleep Efficiency**: At 30.4%, sleep efficiency is below the normal threshold of 85%, indicating potential sleep quality issues.
- **Elevated REM Sleep**: REM sleep comprises 25.8% of total sleep, which is above the typical range of 20-25%.
- Adequate Deep Sleep: Deep sleep stages comprise 16.7% of sleep, indicating good restorative sleep.

#### Recommendations

- Consider sleep hygiene counseling and evaluation of factors affecting sleep quality
- Investigation of factors causing sleep fragmentation may be beneficial

#### **Report Analysis and Generation:**

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Report Version: 1.0 | Generated: August 16, 2025 at 08:58 PM