PHILIPS
RESPIRONICS

Actigraphy

Motion Biosensors

Motion Biosensors for Traumatic Brain Injury

Measuring Sleep, Delivering Insights

Objective sleep measurement to identify disturbances or disorders that may negatively impact the current condition or rehabilitation process, pertaining to traumatic brain injury (TBI).

- Monitor sleep status over extended periods of time to identify and assess sleep disorders and insomnia within TBI patients
- Review data to help optimize TBI rehabilitation process by aiding early detection and treatment of sleep disturbances and disorder
- By providing objective measurements, this data can help to enhance outcomes including decreased rehabilitation duration, post traumatic amnesia, and improved neurocognitive performance over time – via consistent and continuous sleep monitoring with precise data collection

To learn more visit:
www.actigraphy.respironics.com

"Actigraphy Motion Biosensors provided objective sleep measurement for an accurate assessment of our TBI patients' sleep state – aiding us with insights and intelligence to enhance their rehabilitation."

Dr. Risa Nakase-Richardson, PhD Clinical Neuropsychologist

Actiwatch Spectrum PRO and Plus

- Continuous monitoring capability up to 60 days with Actiwatch Spectrum PRO/Plus
- Primary endpoints relevant to TBI include:
  - Total Sleep Time
  - Sleep Efficiency
  - Wake after Sleep Onset (WASO)
- Ambient and spectrum light measurement
- Subjective scoring capabilities with Actiwatch Spectrum PRO

High rates of concordance between PSG and ACG for an inpatient rehabilitation sample with acute to subacute TBI. Correlations between a gold standard method of sleep assessment (PSG) and an activity-based monitor (ACG) was moderate to strong across indices studied, suggesting that ACG is a valid proxy for serial monitoring of sleep in this population[1].

1 Joel E. Kamper, PhD; Jeffrey Garofano, MA; Daniel J. Schwartz, MD; Marc A. Silva, PhD; Jamie Zeitzer, PhD; Mo Modarres, PhD; Scott D. Barnett, PhD; Risa Nakase-Richardson, PhDConcordance of Actigraphy With Polysomnography in Traumatic Brain Injury Neurorehabilitation Admissions. J Head Trauma Rehabil 2016, Vol. 31, No. 2, pp. 117–125

www.philips.com/respironics

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