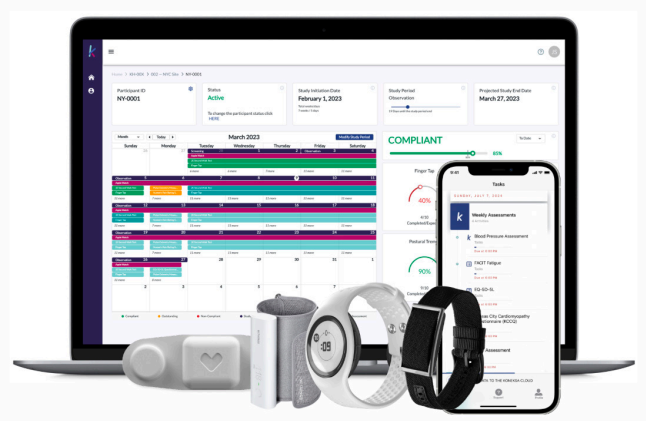
High-Resolution Measurement in Neuroscience Research

koneksa

Designing and delivering structured measurement systems that support rigorous neuroscience research and clinical development.



Episodic clinic-based assessments fail to fully capture the multidimensional progression of neurological and neuropsychiatric diseases. High-frequency longitudinal measurement aligned to disease biology reduces noise, strengthens interpretability, and improves sensitivity to treatment effects, supporting more efficient clinical trials.

Koneksa's measurement framework is designed to overcome the limitations of episodic assessment through structured, longitudinal measurement systems.

Measurement Framework Made for Neuroscience

Koneksa applies a structured, measurement-first model across neuroscience programs:

Signal Identification & Biological Alignment

Measurement strategies defined around disease mechanisms and clinical intent.

Continuous Digital Capture

High-frequency remote data collection designed to enhance signal detection.

Endpoint Design & Validation Strategy

Regulatory-aligned validation planning and documentation supporting submission readiness.

Longitudinal Modeling & Advanced Analytics

Mixed-effects modeling, trajectory analysis, and signal-to-noise optimization.

Measurement Assets and Validation Depth

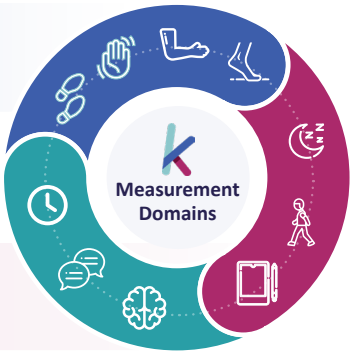
Our neuroscience framework is supported by a library of validated digital neurological measures spanning upper and lower motor, speech, sleep, functional, and cognitive domains.

Proprietary feature engineering, signal-processing methodologies, and longitudinal modeling approaches are designed to optimize signal-to-noise performance and support regulatory-aligned endpoint development across global programs.

Motor + Mobility
Gait + Balance, Postural Tremor, Upper + Lower Limb Function

Cognitive + Speech
Digital Cognitive Assessments, Speech + Motor, Phonation + Articulation

Daily Function + Activity
Mobility, Activity, Sleep

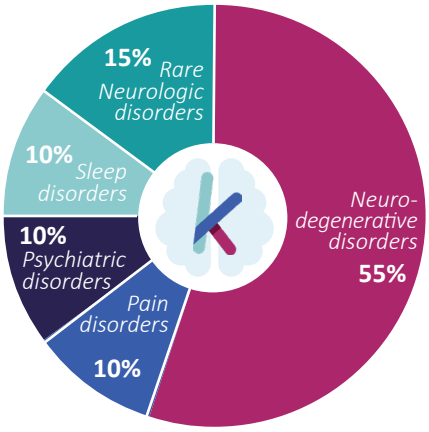


Comprehensive, multidomain measurement aligned to clinically meaningful neurological constructs.

Learn more: www.koneksahealth.com | **Contact us:** hello@koneksahealth.com

Quantified Neuroscience Experience Across Indications

Koneksa has deployed structured measurement systems in multiple indications and countries, generating large-scale high-frequency longitudinal datasets across diverse CNS studies.



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Over one-third of our work to date has focused on neuroscience measurement programs, including multiple Phase II and III programs across progressive and complex CNS conditions.

Measurement in Practice: Indication Snapshot

Parkinson's Disease
Continuous motor assessment enabling within-subject trajectory modeling.

Multiple Sclerosis
Integrated digital and clinical endpoints detecting subtle functional progression.

Rare Neurological Disorders
High-resolution strategies tailored for small, heterogeneous populations.

Sleep Disorders
Repeated remote assessment capturing variability beyond clinic-based visits.

Chronic & Episodic Pain
Multidimensional approaches integrating subjective and objective measures.

Measurable Impact

Across neuroscience programs, Koneksa has delivered measurable improvements in data quality, signal clarity, and endpoint interpretability:

- Increased measurement frequency from episodic to daily capture, enabling higher temporal resolution and improved sensitivity to treatment effects.
- Reduced within-subject variability through repeated sampling, enhancing signal-to-noise performance across longitudinal datasets.
- Enabled longitudinal mixed-effects modeling across progression trajectories, improving separation of standard-of-care effects from treatment and strengthening endpoint interpretability.
- Supported regulatory-facing analyses in complex CNS protocols, aligning measurement strategy with validation planning and submission readiness.

Signal Integrity at Scale

Measurement architecture is supported by integrated execution systems that preserve consistency, completeness, and interpretability across global programs.

Assessment configuration, device ingestion, feature engineering, centralized monitoring, and sponsor system integration are aligned from protocol initiation through database lock.

Where Koneksa's Model Stands Apart:

- Measurement strategy and integrated biometrics embedded from protocol design through study initiation
- Harmonized data ingestion, stewardship and alignment within sponsor EDC ecosystems, including Medidata
- Advanced feature engineering and centralized oversight supporting consistent, interpretable datasets
- Operational models designed for sustained remote engagement across global neuroscience programs

Schedule a scientific consultation to explore your neuroscience measurement strategy with Koneksa.

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