

High-Resolution Measurement in Oncology Research

koneksa

Designing and delivering structured measurement systems that capture treatment impact across survival, function, and quality of life.



Traditional oncology endpoints often rely on tumor response and survival outcomes that capture treatment effects late and incompletely. While quality of life is commonly assessed through patient-reported outcomes collected at clinic visits, these episodic measures may miss objective changes in daily function and health status during treatment.

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

Measurement Framework Made for Oncology

To capture treatment benefit beyond tumor response alone, Koneksa applies a structured multidomain measurement model across oncology programs:

Clinical Objective & Therapeutic Context

Measurement strategies aligned to clinical objectives including survival benefit and functional outcomes.



Symptom & Treatment Burden Detection

Integrated symptom tracking and physiologic monitoring capturing treatment impact.



Continuous Functional Measurement

High-frequency digital measures capturing activity, mobility, sleep, and daily function.



Multidomain Outcome Integration

Combining functional status, physiology, symptoms, and patient-reported outcomes.



Measurement Assets and Validation Depth

Oncology treatment benefit extends beyond tumor response alone. Effective measurement must capture functional change, treatment burden, and patient-reported outcomes alongside survival endpoints across the treatment journey.

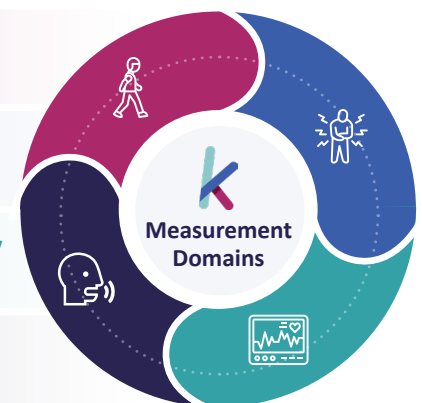
Integrating these measurement domains provides a continuous view of how therapies affect patients beyond episodic clinic assessments. This approach can reveal changes in health status and daily function that may emerge earlier than traditional oncology endpoints.

Functional Status
Step count, Walk duration,
Average gait speed

Symptoms
Fatigue patterns, Pain burden

Treatment Tolerability
Sleep, Mobility, Events

Quality of Life
Physical, Role, Social



Measurement strategies must adapt to diverse oncology therapies and disease contexts.

In solid tumors, functional status and symptom burden often signal treatment benefit earlier than survival endpoints, while immunotherapies and hematologic malignancies require closer monitoring of physiologic changes and treatment-related toxicities.



Critical Questions in Oncology Measurement Design

- *How does treatment affect patient function over time?*
- *Can we detect early signals of response or decline?*
- *How does therapy impact fatigue, sleep, and daily activity?*
- *Can continuous monitoring help detect safety signals earlier?*
- *How do we capture meaningful real-world treatment effects?*

Measurement in Practice

Modern oncology trials must demonstrate more than tumor response alone. Sponsors increasingly need evidence showing how therapies affect patient function, tolerability, and real-world quality of life across the treatment journey.

Designing measurement strategies around these questions requires integrating continuous physiologic, functional, and patient-reported signals alongside traditional oncology endpoints.

Signal Integrity at Scale

Oncology trials require more than continuous data collection. Measurement systems must be designed to preserve endpoint interpretability, support regulatory-grade analyses, and maintain data integrity across global programs and extended treatment timelines.

Digital measurement in oncology must also bridge clinic-based assessments with real-world patient experience, integrate diverse physiologic and biomarker signals, and ensure that longitudinal data remain consistent and interpretable across complex study designs and global execution environments.

Where Koneksa's Model Stands Apart:

Measurement strategy embedded at protocol design, aligned to oncology endpoints

Concept equivalence frameworks linking clinic-based oncology assessments with real-world functional capacity

Multimodal integration across digital physiology, laboratory biomarkers, and patient-reported symptom measures

Device-agnostic data harmonization enabling consistent longitudinal analysis across global oncology programs

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

www.koneksahealth.com | hello@koneksahealth.com |   

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