Evolve your stroke pathway for patient-centered care
Be fast – and effective

Everyone knows someone affected by stroke. People recognize the symptoms and act F.A.S.T.¹ As experts, how can you be fast and effective?

Patients and their families worry about immediate survival and long term effects. Meanwhile, you focus on a fast, secure diagnosis to enable effective treatment and steady recovery.

The risks are sobering: adverse outcomes, unpredicted recurrences, and escalating costs compound stroke’s most visible effects. How can you stay ahead and improve your stroke care?

From the moment a suspected stroke patient enters your emergency room, through diagnostic testing, to dedicated care in your stroke unit – we’ve got you covered. It’s not just mobile, workflow-oriented patient monitoring. You can personalize your stroke care to patients’ individual needs with our integrated solutions for neurological diagnosis and secondary prevention. You can enable patients for rehabilitation as early as possible with our telemetry solutions.

Nihon Kohden supports you along the stroke clinical pathway

We’re ready to support and facilitate your expertise with patient-centered stroke solutions grounded on our unique technology.
Time is brain

Stroke is a true emergency. Every moment counts towards the chance of recovery.

Once a stroke patient arrives, it’s a race towards diagnosis and treatment. During your “door to needle time” you must focus on these main tasks.

Meanwhile, how can you keep an eye on patient vital signs – for peace of mind and to support safe therapy? Choose transport-ready patient monitoring solutions that give you help, not hurdles.

Evolve monitoring for transport

“Grab and go” with a handy monitor designed to support you throughout the patient pathway. From the moment you take it from its cradle, you can rely on easy, uninterrupted monitoring with Life Scope PT. You can even continue monitoring during CT and ultrasound scans. All the vital sign parameters you need are visible at a glance without compromise.

Life Scope PT
Smart transport monitoring

- Made for transport: portable, robust, five hour battery life
- See and act: 5.7 inch touchscreen, optimized transport display mode, continuously measure up to nine parameters
- Easy docking: one click action to connect or disconnect with main monitors on the ward such as Life Scope TR or Life Scope G9

Trigger timely blood pressure measurement

As well as providing reassurance during the diagnostic process, continuous monitoring helps you make sure ischemic stroke patients are ready for thrombolysis. To help you ascertain the appropriate blood pressure to prevent cerebral hemorrhage, all our patient monitors include our unique PWTT (Pulse Wave Transit Time) parameter. If PWTT exceeds the threshold, it triggers an additional non-invasive blood pressure measurement. This increases the chance of detecting a sudden change in blood pressure between periodic NIBP measurements. While you focus on the core activities of preparing a patient for therapy, this automation can help you enhance patient safety.

Make measurements fast and gentle

To make non-invasive blood pressure measurements faster and less intrusive, our iNIBP technology detects systole and diastole during cuff inflation. Our YAWARA CUFF 2 is also specifically designed to reduce the risk of subcutaneous bleeding and increase patient comfort – for more accurate measurement.
Every stroke patient is unique – and so is their journey. Are you prepared to adapt?

Some stroke patients need closer hemodynamic monitoring – not just during thrombolysis, but because they are hypertensive for example. Some patients may have an altered level of consciousness due to increased intracranial blood pressure, neurological affection, or possible seizures. After treatment, patients benefit from early mobilization and rehabilitation.

Within each stroke patient’s journey, how can you adapt to specific requirements, to make diagnosis more comprehensive? Access diverse solutions to adapt to individual needs and ensure efficient monitoring.

Draw more hemodynamic information
Each stroke patient’s needs for blood pressure monitoring are different. Conditions may be in flux, or simply require closer observation.

You can trigger non-invasive blood pressure measurements when required with our PWTT parameter. Even if this means measurements every five minutes, they are fast, reliable, and gentle, due to our iNIBP technology and comfortable YAWARA CUFF 2.

Measure continuously with an arterial line
For hypertensive patients – or when rapid variations are anticipated – use continuous arterial blood pressure to gain a more accurate reading of the patient’s current blood pressure.

Be alerted if hemodynamics change
Beyond analyzing pressure, you may want to assess the hemodynamic trends of your patient and be alarmed if there are significant changes. Now you can non-invasively observe estimated continuous cardiac output in real-time, thanks to our innovative esCCO™ technology. No additional sensors are required, since esCCO uses only the common vital sign parameters of ECG, SpO₂, and blood pressure.

Integrate NeuroMonitoring to the level you need
When stroke patients present an impaired level of consciousness, it can be especially difficult to detect ongoing neurological issues. However, it’s crucial to quickly identify seizures in stroke patients, to ensure the right treatment. With Nihon Kohden’s foundations and heritage in neurology, you can be sure of connected, continuous EEG monitoring (cEEG) to meet the needs of you and your patients.

Up to 10% of patients may suffer seizures after stroke. Forty percent of seizures after ischemic stroke occur in the first 24 hours.²
If you want to access the full range of NeuroMonitoring capabilities, bring our standalone EEG devices to the point of care. Our Neurofax EEG devices are highly scalable, with a wide variety of hardware and software options to cover everything from routine EEG recording to high level brain function research. Alternatively, simply connect our compact EEG module to our Life Scope monitors to examine up to eight channels in real time. Both solutions enable quick data review, with various trends including Density Spectral Array (DSA), Compressed Spectral Array (CSA), and amplitude-integrated EEG (aEEG).

Whatever your particular stroke unit challenges, we can help you implement neurology solutions alongside patient monitoring. Consult our experts to tap into our vast resources and experience.

**Free patients to start early rehabilitation**

Stroke patients benefit from rehabilitation efforts as early as possible. Guided by physiotherapists, patients work to increase their mobility with stationary and walking exercises. But when patients remain connected to patient monitors with cables, you face two options. Either disconnect the cables – and cease monitoring – or limit the exercises.

With our telemetry solutions, monitoring and rehabilitation can walk hand in hand. Our Life Scope G3 is a wearable vital sign telemeter which allows you to monitor ECG, respiratory rate, and SpO2, while at the same time supporting patients with freedom of movement. Patients feel encouraged to regain their independence and actively engage in their own recovery. With one of the broadest telemetry portfolios available, we can tailor a solution to fit your needs.

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**Neurofax EEG-1200/ICU**

**Universal EEG for all needs**

- Space saving design with full 10-20 support
- Interface vital sign data from monitors
- Easy review via trend graphs

**EEG module**

**Connect to Life Scope monitors**

- Just plug and play to monitors
- cEEG with up to eight channels
- Status at a glance via trend graphs
The patient is stable. Is it time to think about prevention?

Between 30 and 40% of ischemic strokes are cryptogenic. A possible cause is atrial fibrillation (AF), which is behind at least 25% of all strokes. However, AF often remains underdiagnosed as it is frequently asymptomatic. To help avert secondary strokes, you must clearly identify patients with permanent episodes of AF and implement preventative therapy.

You’re already monitoring patients continuously. How can you use your data to avoid complications or prevent a second stroke event? When you can detect stroke causes using routine patient measurements, choose prevention over cure.

Get more than snapshots, even from afar
Because of our uninterrupted data flow and automated documentation, you can always keep an eye on a patient’s current status as well as refer to their history and trends.

In addition, with our ViTrac™ iPhone/iPad app, you can be remotely “at the bedside” wherever you are. Saving the time to walk around wards, you can review all your patients in real time. You can advise immediately wherever you are, even outside the hospital through a VPN connection. When stroke patients require ongoing close attention, ViTrac™ means you can leave the ward without leaving the patient.

Detect atrial fibrillation without extra effort
Additional insight doesn’t always require additional effort. Now you can detect paroxysmal atrial fibrillation (AF) with a fully automated ECG analysis that’s significantly superior to all previous standard methods. The patient’s 6-lead ECG waveforms from our patient monitors are automatically, continuously transferred to our partner apoplex medical technologies. After automatic analysis on their servers, you receive reliable Stroke Risk Analysis reports the next morning to use as a basis for anticoagulation therapy.

Compared to conventional methods for AF detection, apoplex’s solution – SRaclinic® – increases the detection rate of AF due to the longer derivation time. And since you use the ECG data you’re already continuously collecting from patients, you don’t have to add any technical equipment to review it yourself.

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Let’s talk – expert to expert

During a stroke, time is brain. But stroke is much more than a neurological emergency. At Nihon Kohden, we understand the journey stroke patients undergo before, during, and after your care in the stroke unit. From the moment a stroke patient arrives via ambulance, until they’re discharged after successful care – we’re ready to support you.

As well as neurology solutions, we offer program development to help you effectively implement the care models that best suit you. And rather than just patient monitoring products, we offer you connected solutions that help you guide patients towards recovery.

What’s the next step to evolve your stroke pathway?

To provide focused, advanced stroke care, we can help you examine and improve your whole stroke pathway. So you can deliver efficient, personalized, and effective care – for every patient.

Visit www.nihonkohden.com to find out more and get in touch.

Evolve your stroke pathway for patient-centered care

Since foundation in 1951, Nihon Kohden’s mission has been to improve the quality of life with advanced technology. We provide solutions for diagnosis, critical care, clinical information, and in vitro diagnostics – and we are dedicated to collaborating with you to confront the challenges of healthcare today and tomorrow.
Improving Healthcare with Advanced Technology

1 F.A.S.T. is a mnemonic acronym to help people recognize the symptoms of stroke and act: Face drooping on one side; Arm weakness on one side; Speech jumbled, slurred, or lost; Time to call emergency services.


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