



# Nihon Kohden creates the future of patient care

The patient monitor of today collects vital signs and notifies the doctor and nurse with an alarm if it detects an abnormality.

What functions do we need for the patient monitor of the future?

The patient monitor of the future will give advance warning of potential change in the patient's condition based on not only the vital signs but also on the latest clinical studies and the clinical history of both the patient and the patient's family.

With the Life Scope G9 monitor, Nihon Kohden creates the future of patient care.



\* Web screen is composite picture



## Optimization for each site and each specialist

Each site and each specialist needs different information and different monitor functions. Life Scope G9 provides the right functions and the right information for each site and each specialist.

### **OR**

### Complete information

While the physician is watching the vital parameters, the anesthesiologist can review anesthetic parameters on the other screen. A heart-lung machine operator can see other vital information on a separate third screen.







Web screen is composite picture

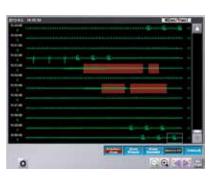
### **ER**

#### Seamless

Life Scope PT can be used as a transport monitor and an input box for Life Scope G9. With this monitor combination it only takes one action to transport the patient.

All patient information before and during transport is stored in the transport monitor and transferred to the central station. No patient information is lost and you can access the patient information seamlessly.









### ICU/CCU

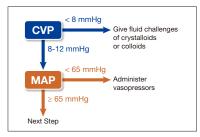
### Reduce morbidity

Sepsis is a common cause of death in the ICU. In severe sepsis or septic shock, infusion within 6 hours is critical.

Blood pressure together with Life Scope G9's Target graph based on the Early Goal-Directed Therapy can support therapy based on guidelines for initial resuscitation of severe sepsis and septic shock.







CVP/MAP initial resuscitation protocol in severe sepsis and septic shock





### **NICU**

### Brain therapy

Because the brain of a newborn baby is immature, it is difficult to detect seizures by observation. Life Scope G9 provides aEEG which makes it easier to detect brain seizure. aEEG monitoring is also becoming important in hypothermia therapy for neonatal encephalopathy.



# Decisive information at your fingertips

The doctor's decision is helped by decisive information which is required on site and which is useful for the patient's prognosis and diagnosis.







\* Web screen is composite picture

### Faster intervention

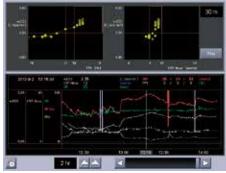
By providing lab data, X-ray and medical charts through the HIS (hospital information system), Life Scope G9 can present the information you need for rapid diagnosis and faster intervention.



#### Better outcomes

Optimizing fluid administration during and post operation can lead to benefits such as shorter length of stay and fewer complications.

You can realize better fluid control for the patient by combining esCCO (Nihon Kohden's continuous cardiac output parameter) and PPV/SPV which indicates fluid responsiveness.







### Reliable 12-lead ECG

For many monitors, diagnosis with 12-lead ECG means that the monitor electrodes must be removed and a dedicated ECG machine must be used. This is a burden for the patient and more work for the caregivers.

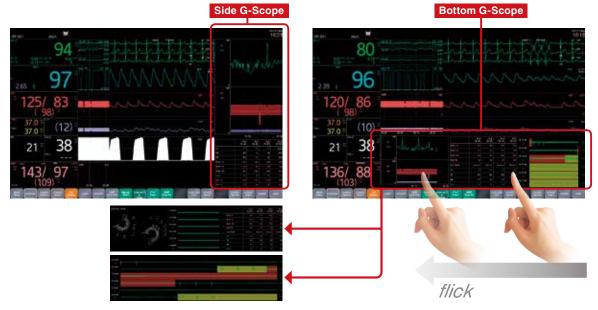
The 12-lead ECG of Life Scope G9 has the same reliability as a dedicated ECG machine so you don't need to change electrodes.



ST review

### Vital sign monitoring during review

Life Scope G9 allows reviewing previous data without hiding the current vital signs and waveforms. Just flick the side or the bottom of the screen and select from three pre-assigned review screens. This G-Scope feature is new on Life Scope G9.



## Efficient operation throughout the hospital

Life Scope PT (transport monitor), ViTrac<sup>™</sup> network server, Smart Cable<sup>™</sup> system, and interbed function contribute to efficient operation throughout your hospital. Increasing efficiency gives you more time for your patients.

### Superior transportability

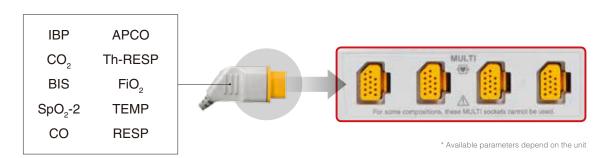
Using a Life Scope PT as an input box enables superior transportability. To transport the patient, just slide out the Life Scope PT and attach it to the gurney, cart or pole beside the patient. During transport, Life Scope PT continuously monitors the patient while wirelessly transmitting the patient data and waveforms to a central monitor.





### Smart Cable™ system - new modular technology

When you plug a Smart Cable into a MULTI socket, it automatically detects the parameter and starts measuring. The combination of fixed basic parameters and flexible MULTI socket parameters allows flexible monitoring for different patient conditions. You get complete modular flexibility at a significantly reduced cost and without the inconvenience associated with traditional modular systems.





### Anywhere anytime

ViTrac<sup>™</sup> network server provides you with monitoring information on multiple patients, any time and any place.









### Interbed monitoring

You can use any bedside monitor to check the vital information and alarm status of another monitor in the network, even if there is no central monitor. Numeric data for 16 patients or numeric data and two waveforms for 1 patient can be displayed on the interbed screen.





### Drag and drop screen builder

If you want to change the position of numeric values, you don't have to go into the system setup. Just drag the vital sign values to where you want. The waveform positions automatically move with the numeric values.



# EBM (evidence-based medicine) for research and applications

With the Life Scope G9, Nihon Kohden continues its contribution to advancement of clinical applications with next generation technology.



### Evidence-based medicine

Evidence-based medicine (EBM) is defined as treatment which is based on proven clinical evidence for treatment effectiveness, side effects and prognosis. The goal is to seek objective epidemiological observations and evidence-based treatment from statistics and use this information to decide the treatment policy with the patients. This information can be obtained from papers and clinical evidence published in journals. The emphasis is on the patient outcome.

One example of EBM is the 100,000 Lives Campaign

which was launched by the Institute for Healthcare Improvement (IHI) in 2004 in the United States to reduce harm and deaths. More than 3,000 hospitals and medical organizations participated and the campaign was a huge success with an estimated 120,000 deaths prevented in 18 months.

This campaign used the latest medical information to specify six areas that could be significantly improved then it developed specific plans for improvement. Provision of evidence-based treatment for acute myocardial infarction was especially notable.

### The six interventions from the 100,000 Lives Campaign

- · Deploy Rapid Response Teams ...at the first sign of patient decline
- · Deliver Reliable, Evidence-Based Care for Acute Myocardial Infarction ...to prevent deaths from heart attack
- · Prevent Adverse Drug Events (ADEs) ...by implementing medication reconciliation
- · Prevent Central Line Infections ...by implementing a series of interdependent, scientifically grounded steps
- · Prevent Surgical Site Infections ...by reliably delivering the correct perioperative antibiotics at the proper time
- · Prevent Ventilator-Associated Pneumonia ...by implementing a series of interdependent, scientifically grounded steps www.ihi.org/IHI/Programs/Campaign/



### Demand for clinical research

In the past there were more cases where it was difficult to find sufficient information to do EBM. The internet brought easy access to medical data such as clinical papers and journals and this has led to greater demand for EBM. With today's rapidly expanding body of evidence, clinical research is becoming more important.

Clinical research can lead to new monitoring applications which can be realized on the patient monitor.

# Contribution to clinical research and application

Life Scope G9 is designed to support clinical research and developing clinical applications. For example, you can save a screenshot of the monitoring screen in a USB memory stick and use it during a daily review or at a conference presentation. This helps you review the trend of the patient condition or perform statistical analysis of pathology.

Life Scope G9 also lets you utilize monitored information to develop a Windows application.

Life Scope G9 is designed from the most basic level to support you in implementing existing clinical protocols or creating a new clinical application.







### The genesis of monitoring

Life Scope G9 changes the world of patient monitoring by revolutionizing relationship among patients, caregivers, and families.

This brochure may be revised or replaced by Nihon Kohden at any time without notice.



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