Life Scope

Bedside Monitor
BSM-3000 series

All for specialists
Nihon Kohden provides the solution

Common issues at acute care environment

• Fluid optimization
• Sepsis
• Respiratory-related harms

Intelligible fluid optimization

Fluid optimization is essential for reducing the risk of complications. Nihon Kohden’s innovative esCCO gives accurate flow information with a very simple and totally non-invasive process.

Improving the mortality rate in sepsis

Sepsis is common cause of death in ICU. Infusion solution within 6 hours is essential from sever sepsis or septic shock. Blood pressure and CVP target graphs can support therapy according to the guidelines for initial resuscitation of sever sepsis and septic shock.

Save the patients from respiratory-related harms

Respiratory-related claims may cause irreversible brain damage or death. ETCQ is the most effective parameter to detect the trouble in breathing or ventilator.

Nihon Kohden innovative mainstream CO₂ sensor, cap-ONE provides reliable ETCQ monitoring for both intubated/non-intubated patients.
Intelligible fluid optimization

Fluid optimization
Too low fluid or too much fluid, both increase patient risk of complications. The best fluid volume that fits to each patient is necessary.

Visualizing volumetric information
Nihon Kohden’s hemodynamics graph provides a more intuitive approach to diagnostic and therapeutic decision making in hemodynamic management. This new tool provides a visual Frank-Starling curve to help the clinician easily see the direction and trend of hemodynamics change.

PPV/SPV Less-invasive preload indicator
PPV (Pulse Pressure Variability) and SPV (Systolic Pressure Variability) show intravascular volume. This is a useful indicator in guiding fluid therapy for patients on mechanical ventilation.

Redefining quality of care with non-invasive hemodynamics monitoring
Nihon Kohden is redefining Quality of Care with new non-invasive technologies like PWTT (pulse wave transit time) and esCCO (estimated continuous cardiac output) by introducing volumetric information to all care levels.

esCCO provides real-time, continuous non-invasive cardiac output measurement alongside the familiar vital sign parameters of ECG and SpO₂.
esCCO is very cost-saving solution because it has no additional running costs or accessories.
Improving the mortality rate in sepsis

Sepsis is an infection caused by bacteria invading the body and can be widespread in the bloodstream (often called “septicemia” or “blood poisoning”).

Sepsis is a medical emergency just like a heart attack because there is an interruption of oxygen and nutrients to the tissues including the vital organs such as the brain, intestines, liver, kidneys and lungs.

Sepsis is common cause of death in ICU. Infusion solution within 6 hours is essential from severe sepsis or septic shock.

**Hemodynamics graph for sepsis treatment**

Blood pressure and CVP (Central Venous Pressure) target graphs can support therapy according to the guidelines for initial resuscitation of severe sepsis and septic shock.

**CVP**

- < 8 mmHg: Give uid challenges of crystalloids or colloids
- 8-12 mmHg
- < 65 mmHg: Administer vasopressors
- ≥ 65 mmHg

Next Step

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

**CVP_ET**

Respiration affects intrapleural pressure and CVP value becomes unstable. Nihon Kohden original technology CVP_ET used the CO₂ signals to calculate the end tidal mean CVP. CVP_ET provides stable and physiologically-correct value of CVP.
Save the patients from respiratory-related harms

ETCO₂ measuring for safer monitoring

Respiratory-related claims may cause irreversible brain damage or death.

Guidelines recommend to measure CO₂ for all patients receiving deep sedation and for patients whose ventilation cannot be directly observed during moderate sedation. Nihon Kohden innovative main stream CO₂ sensor, cap-ONE, realizes ETCO₂ monitoring for both intubated/non-intubated patients.

CO₂ monitoring is also effective for the patients prescribed Opioid (Pain relief medication), especially with oxygen administration. Impedance respiration may miss the arrest of breathing.

Durable and reliable CO₂ sensor

- Fast response with no lag time
- No warm-up time
- No heater or motor
- No sampling tube
- Compact and lightweight

Comparison of mainstream (cap-ONE) and sidestream

Sidestream causes false alarms

High quality monitoring increases accuracy

High accurate ec1 arrhythmia analysis

If there are too many false alarms, you may miss the critical situation of patients. Nihon Kohden’s ec1 arrhythmia analysis provides superior elimination of false alarms. ec1 has been evaluated arrhythmia databases as well as Nihon Kohden’s ECG database, with a result of 80% reduction of false alarms.
Cutting edge technologies

Smart Cable system - new modular technology

When you plug a Smart Cable into a MULTI connector, it automatically detects the type of parameter and starts measuring. The combination of fixed basic parameters and flexible MULTI connector 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.

Smart data review

- Up to 72 hours of 5 selected full disclosure waveforms
- Time is synchronized across all trend screens
- Trend table and trend graph can be customized for each patient condition
- Vital sign trend table, NIBP trend table, trend graph, arrhythmia recall, full disclosure, and alarm history provide comprehensive review
Monitoring system network

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 20 patients or numeric data and 2 waveforms for one patient can be displayed on the Interbed screen.

ViTrac™
Nihon Kohden’s Unified Gateway is a client/server based application which provides a secure method for monitoring and viewing a wide range of patient data from Nihon Kohden monitors and devices. Patient data can be viewed in near real-time on an Apple’s mobile iOS device within the hospital network or remotely via a VPN connection.

ViTrac provides medical personnel with monitoring information on multiple patients, any place any time.

HL7 Gateway
An HL7 gateway connects the LS-NET monitor network to the hospital or clinical information system (HIS, CIS). Vital sign data, alarm history, arrhythmia and ST recall, 12-lead analysis reports, and waveforms in the bedside monitor can be transferred using HL7 protocol.

Some limitations apply to transferring waveforms.
For the complete list of devices, please contact your Nihon Kohden representatives.

Ventilator*
- Dräger
- Puritan Bennett
- MAQUET
- Hamilton
- GE
- Newport Medical
- Air Liquide
- ResMed
- Metran
- Care Fusion
- Heinen+Löwenstein

Anesthesia workstation*
- Dräger
- MAQUET
- Heinen+Löwenstein
- GE
- Air Liquide

Anesthesia workstation*
- Dräger
- MAQUET
- Heinen+Löwenstein
- GE
- Air Liquide

Anesthesia workstation*
- Dräger
- MAQUET
- Heinen+Löwenstein
- GE
- Air Liquide

Transcutaneous monitor*
(tcpO₂ / tcpCO₂)
- Radiometer
  MicroGas 7650 rapid, TCM4, TCM40, TCM Combi M

CCO monitors*
- Edwards Lifesciences
  Vigilance, Vigilance II, Vigileo
- ICU Medical
  Q2, Q2 Plus, Q-Vue
- PULSÖN Medical Systems
  PICCO monitor

BIS processor
QE-910P

NMT Module (TOF)
AF-101P

Regional saturation of oxygen* (rSO₂)
- Covidien
  INVOS 5100C

Multigas unit
GF-210R
Multigas/flow unit
GF-220R
Neuro unit
AE-918P

Consumables

CO₂ sensor
CO₂ Sensor kit TG-820P

Airway adapter R904

Oral/nasal adapter VR23, with oxygen cannula adapter

SpO₂ sensor
P225F, finger
P225G, Multisite Type
Neonate to Adult use

NIHON KOHDEN

NIHON KOHDEN CORPORATION
308, Tower-A Spazeedge, Sector-47,
Sohna Road, Gurgaon - 122 002, Haryana
Phone : +91 124 493 1000  Fax: +91 124 493 1029
Email : info_nki@nkco.co.jp

308, Tower-A Spazeedge, Sector-47,
Sohna Road, Gurgaon - 122 002, Haryana
Phone : +91 124 493 1000  Fax: +91 124 493 1029
Email : info_nki@nkco.co.jp

CIN No.: U33110HR2011PTCO41863

Customer Care Toll Free No.: 1800-103-8182

*External Units
BIS, INOS, Covidien, Puritan Bennett are trademarks of Covidien AG.
Edwards Lifesciences, Vigilance, and Vigileo are trademarks of Edwards Lifesciences Corporation.
Q2, Q2 Plus and Q-Vue are trademarks of ICU Medical, Inc.
PICCO is a trademark of PULSÖN Medical Systems AG.
Dräger, Evita, Evita 2, dura, Fabius, Primus and Savina are trademarks of Drägerwerk AG & Co. KGaA.
FLOW-i, MAQUET, SERVO-i and SERVO-s are trademarks of MAQUET GmbH & Co. KG.
Leoni Plus is a trademark of Heinen + Löwenstein GmbH & Co. KG.
GALEO, HAMILTON G5, HAMILTON C2, HAMILTON MEDICAL and RAPHAEL are trademarks of HAMILTON MEDICAL AG.

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