

PHILIPS

IntelliVue

Patient monitoring
solutions

Clear decisions
at the point of care



Turn insight into action

Philips patient monitoring provides you with innovative ways to acquire, analyze, interpret, and present patient data wherever you care for patients. Philips helps enable continuity of care through Clinical Decision Support tools, along with wired and wireless solutions to fit your needs.

Monitoring and decision support throughout the hospital

Philips IntelliVue solutions bring together the critical components to aid effective clinical decision-making at the patient's side. Clinical decision support tools feature intuitive displays, smart alarms, and predictive algorithms to bring subtle changes into focus – helping clinicians recognize those changes and take action early. Philips is committed to advancing technologies that help clinicians collect, combine, and cross-reference physiologic data for a coherent picture of their patients' status.

We have you covered

Look to Philips to offer solutions in ways that work for you. The IntelliVue Clinical Network offers a choice in wired and wireless infrastructures. IntelliVue interfacing solutions provide a broad range of collaborative possibilities with medical devices and clinical systems.

These solutions are designed to fit easily into your existing IT infrastructure and take you where you want to go in the future.

To complete your solution, we offer a broad range of services to support you with installation and maintenance. We can also help you to optimize your care environment, and to extract the full value of your equipment throughout the lifecycle.

By leveraging a powerful combination of Philips monitors, supplies and our extensive service portfolio, you can achieve more by enjoying the confidence that Philips is at your side – now and throughout your lifecycle journey.



Clinical decision support tools **clarify choices**

Our clinical decision support (CDS) tools provide the information you need to address important issues your organization faces every day. For example, among the CDS tools available on IntelliVue patient monitors, ProtocolWatch-Sepsis brings relevant, evidence-based care protocols to the bedside, providing a clear path to identify and treat patients with sepsis.

Evidence suggests that early, timely, and aggressive resuscitation for patients with septic shock can have a significant impact on both morbidity and mortality. However, even with widespread awareness of Surviving Sepsis Campaign (SSC) guidelines, adherence varies widely. Initial research suggests that ProtocolWatch-Sepsis can simplify clinician workflow and help improve patient care, significantly increasing compliance with SSC guidelines and reducing time to administration of antibiotics by more than one hour.¹

The diagram illustrates the flow of patient care through various hospital departments. The departments are represented by colored isometric rooms:

- General ward** (Yellow)
- ICU/CCU** (Purple)
- Maternity** (Blue)
- NICU** (Pink)
- Emergency department** (Dark Blue)
- PACU** (Green)
- Operating room** (Orange)
- Stepdown/cardiac care** (Red)

An ambulance is shown entering the Emergency department, and a patient is shown being transported from the ICU/CCU to the General ward. The flow is indicated by arrows connecting the rooms.

Did you know that we offer a comprehensive range of services – from support and installation to maintenance; from education and clinical consulting to optimization?

We're here to support you with your entire patient monitoring solution with our comprehensive services

Philips IntelliVue patient monitoring solutions 3

Monitoring transformed

IntelliVue patient monitors give care teams the information they need in clear and meaningful ways. All monitors share a common, intuitive user interface and outstanding industrial design.



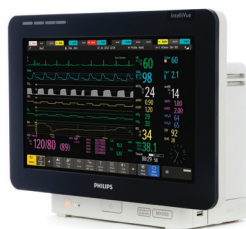
IntelliVue MX850**

The IntelliVue MX850**, with its multi-display and multi-user capabilities, is built for the highest-acuity patients and the most demanding interventions, such as cardiothoracic or transplant surgery. Featuring direct access to hospital applications via HTML5, Citrix, and optional integrated PC, the monitor is also designed to support cybersecurity features such as node authentication, network data encryption, print report encryption and device data encryption, and includes a built-in RFID/NFC card reader.



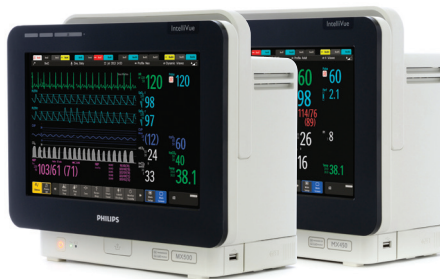
IntelliVue MX750**

Covering a wide range of intensive care and anesthesia use cases and applications, the IntelliVue MX750** is the critical care workhorse of the IntelliVue family. Featuring direct access to hospital applications via HTML5, Citrix, and optional integrated PC, the monitor is also designed to support cybersecurity features such as node authentication, network data encryption, print report encryption and device data encryption, and includes a built-in RFID/NFC card reader.



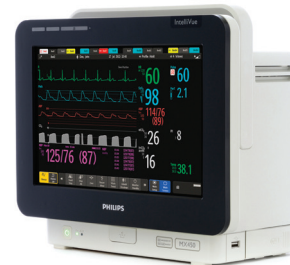
IntelliVue MX550

Pairs powerful bedside monitoring with the reassurance of a battery backup, with a 15"-wide touchscreen, for sub-acute floor, an ICU, and even the OR.



IntelliVue MX500 and MX450

Combining powerful monitoring with portability and measurement flexibility in one compact unit, with a 12"-wide touchscreen, for the ICU, a sub-acute floor, or during in-hospital transport.



IntelliVue MX400

Providing powerful monitoring in a highly compact, highly transportable unit, with a 9"-wide touchscreen, for the Emergency Department, NICU and other areas where a compact monitor is needed, plus it's tough enough to withstand the rigors of in-hospital transport.



IntelliVue XDS Application

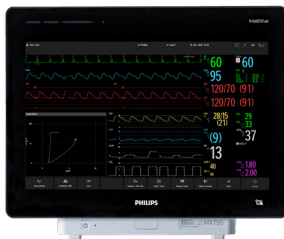
The various solutions of the IntelliVue XDS Application let you

- view and operate the patient monitor remotely.
- put up to 16 waveforms and numerics on an additional, high-resolution, large display, independent of the display capability and configuration of the patient monitor.
- create a flexible, workstation combining information from the patient monitor, with data from IT or clinical applications.
- gather and store numeric data from a patient monitor in an SQL-compatible database, for interrogation and analysis with third-party applications, and standard queries and tools.
- securely share patient monitoring information for near real-time evaluation, for a simple telemedicine solution.

Leading measurements

We are committed to providing exceptional standard measurements, such as pulse oximetry with the Philips FAST SpO₂, Masimo® SET®, Masimo rainbow® or Nellcor® OxiMax™ algorithms, and the Philips ST/AR algorithm to support the clinician's decision at the patient's side. We maintain and advance the performance of existing, widely used standard-of-care measurements, and also invest heavily in research, development, and clinical validation of new, innovative parameters and algorithms.

Philips also works with world-class partners to incorporate leading and next-generation measurements and technology, and we offer interfaces to more than 50 specialty measurement devices through the Philips IntelliBridge Bedside (EC10) module. IntelliBridge is a plug-and-play interface module that provides communication to specific external devices and acquires and incorporates real-time information from external devices into Philips IntelliVue patient monitors.



IntelliVue Active Display AD75/AD85**

The IntelliVue Active Displays AD75 and AD85 are independent remote displays that can be used to view screens and provide visual and audible alarms generated by the connected Philips patient monitor, while limiting the need to enter the patient rooms.



IntelliVue X3

The IntelliVue X3 is a compact, portable, dual-purpose patient monitor that instantly transforms from a multi-measurement bedside module into a rugged, fully functional transport monitor. There's no need to change patient cables before the move or when you return to the bedside. So you spend less time dealing with equipment and have more time to focus on what matters – your patients.



IntelliVue MX100

Now there's a flexible, reliable way to monitor patients on the move – and at the bedside – with a single, portable, stand-alone monitor. The IntelliVue MX100 is small and light enough to go almost anywhere in the hospital, yet offers a broad, scalable set of basic and advanced clinical measurements to keep you informed about your patient's condition every step of the way.



Measurement modules

A suite of monitoring measurements to meet your patient care needs.

Trusted everywhere

IntelliVue patient monitoring solutions provide actionable, care-specific information when and where it's needed to make a meaningful difference for clinicians and patients.



Acquire with ease

We start by transforming monitoring, so you can adapt the level of monitoring to changing patient acuity. Reliable, high-quality patient accessories and sensors connect to IntelliVue devices to acquire your patients' physiologic data quickly and easily.

Analyze and interpret with confidence

With IntelliVue, critical data are assessed and analyzed by intelligent algorithms, and presented in relevant ways to support confident clinical decision-making. Philips Clinical Decision Support tools set the standard in assisting healthcare teams with tasks that demand cross-referencing, presentation, and analysis of clinical information.

Present with clarity

With IntelliVue, enterprise information is available in a single view. Clinicians have access to cross-departmental document sharing, providing point-of-care access to information from monitoring views and IT applications to help improve care every day.



IntelliVue MX40

The IntelliVue MX40 is small enough to be comfortably worn by your ambulatory patients for continuous wireless monitoring of ECG, SpO₂, impedance respiration, and other vitals in real time. MX40 features color touch navigation harmonized with the IntelliVue patient monitoring product line, including up to two real-time waves or all numeric screens. View patient demographics, alarm settings, histories, and trends – you can even hear alarms or silence alarms at your patient's side. Each MX40 device supports your choice of either disposable or a lithium-ion rechargeable battery.

IntelliVue short-range radio

IntelliVue patient monitors with short-range radio provide connectivity and communication among devices, aiding workflow at the point of care. It facilitates increased patient mobility by removing barriers to care, allowing connection wirelessly. IntelliVue MX40 with short-range radio expands monitoring capabilities to provide untethered in-room access to ECG/SpO₂ data in near-real time. Wirelessly connect the IntelliVue MX40 to the IntelliVue MP5 to view patient data along with other parameters.

Your path to interoperability

Interoperability allows enterprises to select the best solutions to meet their needs, simplifying deployment while providing virtually seamless transmission of mission-critical data.

Data from IntelliVue monitors can be sent to electronic medical records (EMRs) and patient data management systems (PDMSs) – either directly or through the Philips Patient Information Center iX (PIC iX).

In addition, we can offer consulting expertise to resolve your IT and clinical challenges and get your systems interoperating. In close collaboration with your IT specialists and biomedical engineers, we help you realize the potential of your PIC iX system and corresponding workflows and processes.



Philips Patient Information Center iX

PIC iX combines the surveillance of a central station with sophisticated clinical decision support tools – such as ST Map – and the ease of touchscreen operation. You can see a consolidated view of alarm data in the Alarm Audit Log. Capture complete waveforms, trends, alarms, and numerics from wired and wireless networked IntelliVue patient monitors.

IntelliVue supports 802.11 infrastructure

The IntelliVue Clinical Network provides bedside and transport monitoring on industry-standard 802.11 a/g infrastructure. By using industry-standard protocols and your own network components, Philips is able to offer a cost-effective solution for flexible patient monitoring. This solution supports and enables two-way wireless communication of all waveforms and parameters between IntelliVue patient monitors and the PIC iX.

IntelliBridge connectivity solutions

The IntelliBridge Bedside (EC10) and IntelliBridge System (EC40/EC80) interoperability solutions let you incorporate data from point-of-care devices from a broad selection of manufacturers into your IntelliVue patient monitoring. IntelliBridge solutions go beyond just capturing data and uploading it into an electronic medical record for documentation. Having alarm information on the PIC iX, for example, lets you distribute it through Philips mobility solutions to provide caregivers on-the-go with remote notifications and insight into alarm data. IntelliBridge Bedside can also support incorporating comprehensive real-time data, such as waveforms and alarm information, into IntelliVue patient monitors for a consolidated patient overview.

IntelliBridge Enterprise

IntelliBridge Enterprise provides you a single, standards-based point of interoperability between Philips clinical systems and enterprise information systems, while reducing complexity and cost in your healthcare environment. IntelliBridge Enterprise can also be used to connect with other information systems such as those associated with comparative effectiveness research.

IntelliVue Smart-hopping Network

The IntelliVue Smart-hopping Network is a patented wireless network designed for in-building use. From small to large enterprise deployments, the IntelliVue Smart-hopping Network is a dependable solution for continuous physiological monitoring.

HL7 output

HL7 output (available on the PIC iX) provides a standards-based framework for the exchange, integration, sharing and retrieval of electronic health information. This allows healthcare organizations to easily share clinical information.

Emergency intervention

When in the hospital, wireless connectivity of IntelliVue patient monitors, including the IntelliVue X3, allows clinicians to be aware of – and quickly respond to – changes in the patient's condition.

IntelliVue series monitors offer an intuitive touchscreen with clinical measurements, an easy-to-see display and one-touch commands. When connected to the IntelliVue X3, MX100, MP5, MX400, or MX450, the IntelliVue XDS Remote Display application software supports expanded screen size and alternative patient views.

	Emergency department	In-hospital transport
IntelliVue MP5	•	•
IntelliVue MX400/MX450/MX500/MX550	•	•
IntelliVue X3	•	•
PIC iX	•	
IntelliVue XDS	•	
IntelliVue MX40	•	
WLAN/IntelliVue Smart-hopping access points	•	
IntelliVue MX100	•	
Services	•	•



Smooth information workflow

The IntelliVue X3 is a combined multi-measurement module and transport monitor, lightening the load when it comes to patient transport. It's small and rugged enough to go almost everywhere while offering continuity of patient data across all levels of patient monitoring.

Big in capability, IntelliVue X3 allows you to unplug and go in a single step, helping to improve patient care. Gain great clarity through exclusive integrated clinical decision support tools that make it easy to focus on the patient at every point.





Perioperative productivity

Philips patient monitoring and information management solutions are designed to support your perioperative workflow by fostering enhanced patient care from preop through surgery and postop recovery, including transport to and from the ICU, through the care on the ICU, and on to the general ward. The IntelliVue family of patient monitors can be configured with an anesthesia profile that delivers specific applications for the perioperative space. As a result, monitors with this profile are equipped to match the pace and unique needs of even the highest-acuity care environment of the operating room.

	Operating room	PACU
IntelliVue XDS	•	
IntelliSpace Critical Care and Anesthesia	•	•
IntelliVue MX550/MX750**/MX850**	•	•
WLAN/IntelliVue Smart-hopping access points	•	•
Clinical Services	•	•



IntelliVue anesthesia patient monitors offer a comprehensive menu of measurements to match the needs in all acuity levels of anesthesia care. The monitors also offer highly flexible anesthesia-specific screen configurations. The IntelliVue MX850**, for example, supports up to two external displays that can be connected via LAN – such as the IntelliVue AD75 and AD85 Active Displays².

IntelliVue monitors also have built-in tools to help you make informed clinical decisions. For example, Pulse Pressure Variation (PPV) is an indicator of the patient's fluid responsiveness, Horizon Trends give you a quick and easy view of the patient's current status and recent changes, and ST Map provides a graphic presentation of ST segment changes in a patient's ECG.

Our open systems approach means IntelliVue monitors can be easily interfaced with major anesthesia machine brands and models for a comprehensive anesthesia workspace. Philips IntelliBridge interface modules conveniently incorporate data from anesthesia machines, infusion pumps, and other stand-alone devices. This data can then be presented on a single patient monitor display and included in the trend database. This uses standard communication protocols to make data available to the IntelliSpace Critical Care and Anesthesia (ICCA) information system or other clinical or hospital information systems, such as the electronic medical record system (EMR).



Real-time support for anesthesia care

Philips offers the G7m anesthesia gas module, which integrates gas measurements into the monitor to identify and measure anesthetic agents, N₂O, and respiratory gases. Other useful measurements include Bispectral Index® (BIS™) to assess the level of consciousness, NMT to help control the dosage of blocking or reversal agents and thus the depth and duration of neuromuscular block, pulse pressure variation (PPV) to determine the patient's responsiveness to the administration of fluids, and QT/QTc to monitor changes in the patient ECG's QT interval. Clinical decision support tools such as Horizon Trends and ST Map provide patient status information in a clear, easy-to-grasp presentation.

² IntelliVue AD75 and AD85 Active Displays are not available in all markets.

Supportive solutions from the start

Philips helps support family-centered developmental care in the NICU with solutions that allow efficient deployment of NICU nurses and encourage bonding between parents and babies.

Our IntelliVue patient monitoring family is designed to meet the needs of your NICU.

To **quickly assess** patient condition, each of our IntelliVue patient monitors offers specific measurement algorithms adjusted to the physiology of neonates, including dual SpO₂ and Microstream CO₂.

To help you **maintain a healing environment**, our monitors include features such as screen brightness that adjusts to ambient light conditions, and the ability to remove alarm noise from the bedside. The combination of remote alarm device, XDS software, PIC iX and our enterprise mobility solutions allow you to develop an alarm management protocol that works for you.

Our **specialized clinical decision support** tools, Oxy-CRG, Neonatal Event Review, and car seat testing (CAR), were developed specifically for the neonatal environment.

Philips supports family-centered care by providing a **view of multiple patients' status** from IntelliVue monitors throughout the unit. Patients in individual

family rooms can be observed from elsewhere in the NICU with the Philips “window within a window” view, allowing virtually seamless care from clinicians while families are bonding.

Philips IntelliBridge provides an interface to many incubators and neonatal ventilators, providing an integrated view of data.

Our **highly configurable alarming** allows you to optimize settings by individual patient, and we provide an ideal infrastructure to support family-centric care models, including personalized alarm distribution to caregivers through the CareEvent event management system. We also offer training, education, and home monitoring solutions to ease the transition from NICU to home.

Alongside these features, our **educational and consulting programs** – led by a team of clinically active professionals – offer a broad portfolio of offerings dedicated to supporting your goals of developmental care for your most fragile infants.

	Maternity	NICU
IntelliVue MX750**/MX850**		•
IntelliSpace Critical Care and Anesthesia		•
PIC iX		•
IntelliVue X3		•
IntelliVue MX400/MX450/MX500/MX550		•
WLAN/IntelliVue smart-hopping access points	•	•
IntelliVue XDS		•
IntelliSpace Perinatal	•	
IntelliVue MP5SC	•	
Avalon fetal monitors	•	



Supporting goal-oriented neonatal therapy

IntelliVue Neonatal Event Review detects and documents apnea, bradycardia, and desaturation as well as providing information for the diagnosis and management of neonatal intensive care patients. Clinicians can designate any combination of apnea, bradycardia, or hypoxia as a significant neonatal event.

Oxy-CRG (oxy-cardiorespirography) combines the compressed trends of a neonate's beat-to-beat heart rate, respiration, and oxygenation levels in an easy-to-interpret display on IntelliVue patient monitors, offering an indication of breathing efficiency and brain maturity.

Car seat testing, recommended by the American Academy of Pediatrics, helps clinicians to assess a neonate's ability to tolerate the car trip home.



Critical data for critical care

The need to unlock the power of information at the point of care to enable clinically informed decision making and activate early intervention has never been greater. Our critical care solutions leverage advanced physiologic monitoring and clinical informatics, to provide flexible capabilities for caregiver mobility, data sharing, and clinical decision support.

A comprehensive, easy-to-use clinical information system, such as IntelliSpace Critical Care and Anesthesia (ICCA), can provide the care team with relevant data including clinical summaries and administrative overview throughout the continuum of care.

In the step-down unit, the IntelliVue MX40, MX400, MX450, MX500, and MX550 patient monitors provide powerful monitoring capability and essential measurements in a compact package for intermediate care.

All ICU and step-down unit beds can be connected through a wired or wireless network to the PIC iX, allowing for efficient monitoring from a central or remote location.

CareEvent event management system provides clinical communications to improve workflow and efficiencies, extending the functionality of your Philips patient monitoring system by delivering complementary event

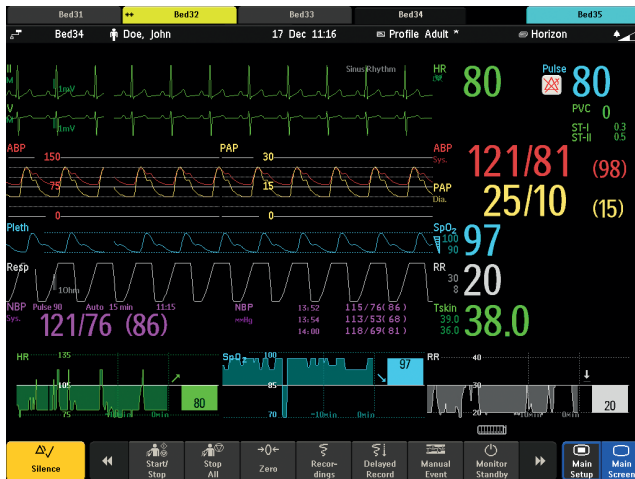
notification directly to your clinical staff. IntelliVue device alarm messages can be routed to the appropriate mobile device, providing staff with alerts related to critical and non-critical alarms and events.

With our caregiver mobility solutions – including our suite of patient monitoring apps optimized for smart phones and tablets – you can connect caregivers to patient information, anytime and virtually anywhere. This helps support caregiver work patterns, facilitate collaborative decision making, and provide more consistent, effective care across your enterprise.

Alongside these solutions, our professional services – which include IT and clinical offerings – can help to enhance your clinical and operational workflows. We help you understand critical data in a clinical context, and transfer this information into your various hospital systems.

	ICU/CCU	Stepdown/cardiac care
IntelliVue XDS	•	•
PIC iX	•	•
IntelliSpace Critical Care and Anesthesia	•	•
IntelliVue MX40		•
IntelliVue MX400/MX450/MX500/MX550	•	•
IntelliVue X3		•
WLAN/IntelliVue Smart-hopping access points	•	•
IntelliVue MX750**/MX850**	•	

A clear view of patient status



The Horizon Trends clinical decision support tool was developed to provide meaningful and intuitive displays of actual clinical status to desired goals, simplifying clinician workflow and helping to improve patient care.

In a clinical study of 74 critically ill patients, subjects in the Horizon Trends group had higher mean arterial blood pressures and spent more time within their target blood pressure ranges as compared to subjects

in the group without Horizon Trends. Clinicians report, "The use of Horizon Trends helps us visually see how we are doing with IV medication titration in keeping our blood pressures at goal. It is nice being able to see trends with one quick look."

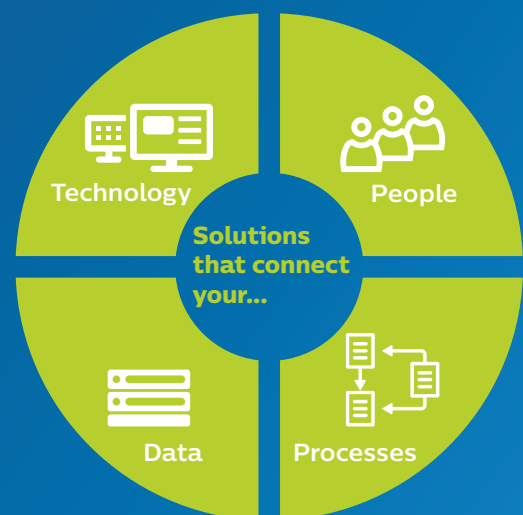
* Giuliano K, Raber G, Case J, Drew T, Donahue J, Optimization of blood pressure management with vasoactive medications using Horizon Trends., Critical Care Medicine. 2008, 36(12) Suppl: A 62

Comprehensive solutions that deliver more than the sum of their parts

Pairing equipment with the right value-added services helps you get more from your systems across their lifecycle. And we're not talking about simple break-fix support. Philips Customer Services encompass so much more. We can help you with implementation, project management, optimizing your care environment, maintaining your systems and extracting the full value of your equipment throughout the lifecycle.

Partnering with you

We deliver comprehensive, tailored offerings that take into account your specific needs. We take a holistic approach, working with you to suggest solutions that complement your facility, your monitoring landscape, and your strategic aims. By partnering with you every step of the way to find answers to the challenges you're facing. And by seamlessly connecting your people, processes, technology and data – helping to make them work better together.



****Please note**

- The IntelliVue MX750 and MX850 Patient Monitors and AD75 and AD85 Active Displays have neither been cleared or approved for the indication to assist in for monitoring and recording of, and for generating alarms for, multiple physiological parameters of adult, pediatric, and neonate patients having or suspected of having Coronavirus-2019 (COVID-19); and,
- The IntelliVue MX750 and MX850 Patient Monitors and AD75 and AD85 Active Displays have been authorized for the above emergency use by FDA under an EUA;
- The IntelliVue MX750 and MX850 Patient Monitors and AD75 and AD85 Active Displays have been authorized only for the duration of the declaration that circumstances exist justifying the authorization of the emergency use of medical devices under section 564(b)(1) of the Act, 21 U.S.C. § 360bbb-3(b)(1), unless the authorization is terminated or revoked sooner.



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