GE Healthcare

ApexPro CH

Enterprise-wide telemetry

Expanding the power of telemetry.

Telemetry is an important technology in today's healthcare environment. With patient care and safety as your primary concerns, the GE Healthcare ApexPro® CH telemetry system delivers proven reliability and clinical technology that reduces the possibility of transmission interference, dropout and downtime.

ApexPro CH works seamlessly with CARESCAPE™ Enterprise Access, giving you the option to unite clinical intelligence across the enterprise under one halo of wireless coverage. This single-infrastructure approach gives you more channels, more coverage area and more flexibility to deploy ApexPro CH telemetry wherever you need it.

Stronger together.

ApexPro CH relies on an exceptional networking infrastructure operating in the Wireless Medical Telemetry Service (WMTS) for dependable communication of vital patient information. Multiple WMTS frequency bands are accommodated within the CARESCAPE Enterprise Access multi-use wireless infrastructure, providing you the capacity and flexibility to meet your telemetry demands.

As part of GE's comprehensive wireless solution, ApexPro CH delivers the relevant clinical intelligence to help caregivers respond to critical situations faster and work more productively. Together with the comprehensive GE Healthcare suite of mobile, remote and bedside monitoring technologies, ApexPro CH helps you deftly manage Clinical Information Logistics™ across the enterprise by delivering information to the critical point of clinical decision-making.

Maximizing capacity and coverage.

GE vital signs monitors use exceptional algorithms, including GE DINAMAP® SuperSTAT™, Alaris® Turbo Temp® and a selection of SpO_2 technologies. The captured measurements are sent to the central station when a DinaLink cable is connected to the ApexPro transmitter.

ApexPro CH offers a WMTS-protected, wireless patient monitoring system that helps protect against signal interference and dropout. The system operates in both the 608 to 614 MHz and 1395 to 1400 MHz ranges, giving you flexibility and scalability to reduce the possibility of transmission interference in any RF environment.

The new CARESCAPE Telemetry T14 Transmitter expands the capacity of the ApexPro CH telemetry system, enabling you to monitor up to 438 patients across the coverage area. This accommodates today's requirements while ensuring capacity for future expansion.

ApexPro CH includes exclusive GE technologies such as quad-diversity antennas, which search four separate antenna fields each second for the best signal from each patient. It also features DSA^2 ™ technology to provide even and continuous telemetry coverage throughout the hospital.

Designed to be both backward-compatible and forward-flexible, ApexPro CH enables you to extract maximum value from your telemetry system while protecting your investment over time.
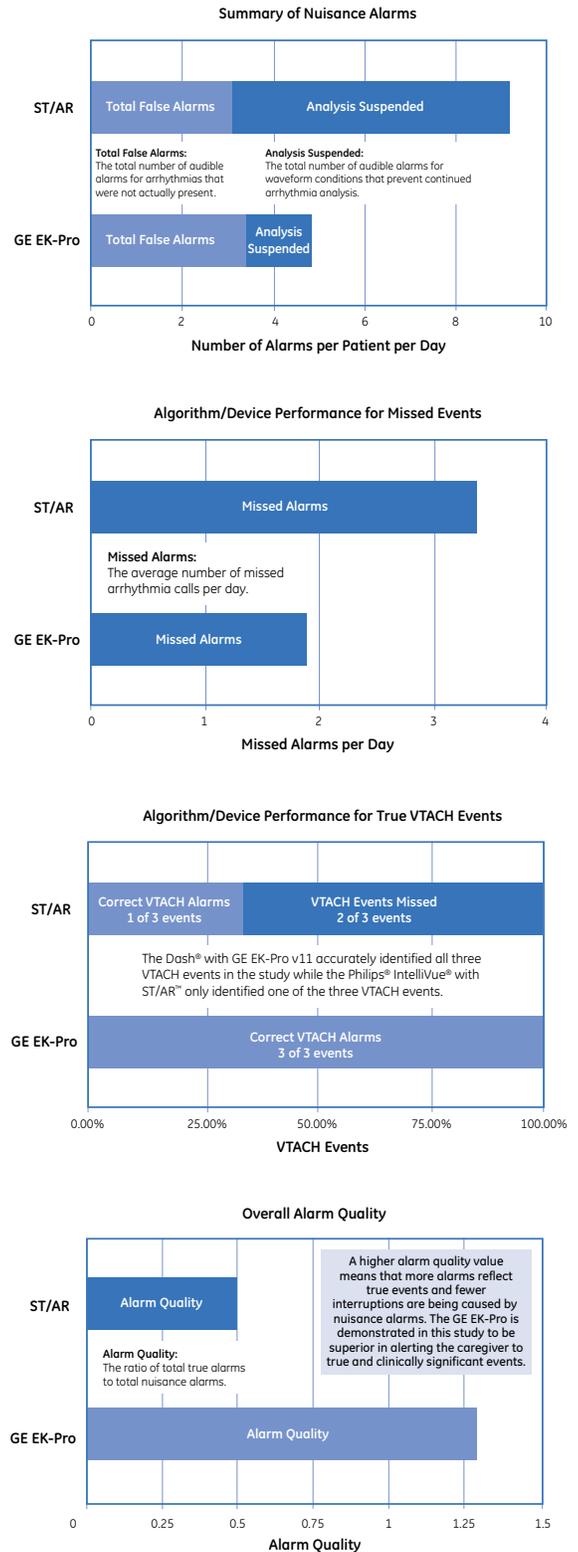
The foundation for clinical quality.

Patient safety and outcomes are among your top priorities. ApexPro CH addresses both with exceptional detection and analysis of patient data to help you monitor your patients' status more fully and accurately.

• ApexPro CH uses the GE EK-Pro clinical algorithm, which processes and analyzes four independent, simultaneous ECG leads — meeting and exceeding stringent AHA guidelines. Plus, an innovative Smart Leads Fail feature significantly reduces false ECG alarms.

• With GE EK-Pro, ApexPro CH supports advanced atrial fibrillation detection and alarming. Early and accurate identification of AFib may help prevent this arrhythmia from becoming chronic.

• ApexPro CH has the capability to monitor two V-leads on each patient. Caregivers can be vigilant for both arrhythmias and ST segment changes through a better picture of the patient's heart.

• Pace detection across two vectors improves the system's ability to see and recognize a wide variety of pacemakers.

• The flexible design of ApexPro CH allows each transmitter to monitor only the parameters each patient requires. Continuous monitoring of ECG and SpO$_2$, and episodic monitoring of NIBP and temperature allow caregivers to tailor monitoring according to the patient's acuity.

Based on results of a scientific study,[1] GE EK-Pro v11 arrhythmia analysis software outperformed that of a leading major competitor on several key metrics:

Summary of Nuisance Alarms

ST/AR | Total False Alarms | Analysis Suspended

Total False Alarms:
The total number of audible alarms for arrhythmias that were not actually present.

Analysis Suspended:
The total number of audible alarms for waveform conditions that prevent continued arrhythmia analysis.

GE EK-Pro | Total False Alarms | Analysis Suspended

Number of Alarms per Patient per Day
(0, 2, 4, 6, 8, 10)

Algorithm/Device Performance for Missed Events

ST/AR | Missed Alarms

Missed Alarms:
The average number of missed arrhythmia calls per day.

GE EK-Pro | Missed Alarms

Missed Alarms per Day
(0, 1, 2, 3, 4)

Algorithm/Device Performance for True VTACH Events

ST/AR | Correct VTACH Alarms 1 of 3 events | VTACH Events Missed 2 of 3 events

The Dash® with GE EK-Pro v11 accurately identified all three VTACH events in the study while the Philips® IntelliVue® with ST/AR™ only identified one of the three VTACH events.

GE EK-Pro | Correct VTACH Alarms 3 of 3 events

VTACH Events
(0.00%, 25.00%, 50.00%, 75.00%, 100.00%)

Overall Alarm Quality

ST/AR | Alarm Quality

Alarm Quality:
The ratio of total true alarms to total nuisance alarms.

A higher alarm quality value means that more alarms reflect true events and fewer interruptions are being caused by nuisance alarms. The GE EK-Pro is demonstrated in this study to be superior in alerting the caregiver to true and clinically significant events.

GE EK-Pro | Alarm Quality

Alarm Quality
(0, 0.25, 0.5, 0.75, 1, 1.25, 1.5)

Intelligence comes in many forms.

With ApexPro CH, vital patient details are available through a variety of information viewing devices to enable constant vigilance and workflow flexibility. When clinical intelligence can be accessed in so many convenient ways, caregivers are empowered to respond quickly to critical situations and take appropriate action.

CARESCAPE Mobile Viewers™ connect patients and caregivers virtually any time and place by enabling remote viewing of telemetry information on laptops, PDAs, Tablet PCs or cell phones.

CARESCAPE CIC Pro central station enables you to manage patient information gathered from any patient monitor on the CARESCAPE Network.

In Combination Mode, a Dash or Solar® monitor at the bedside can display ApexPro CH telemetry waveforms alongside other vital signs, saving the time and inconvenience of disconnecting and reconnecting the patient to telemetry. In Rover Combo Mode, a wireless Dash monitor and ApexPro CH telemetry together create a powerful mobile monitoring solution.

ApexPro CH can be used effectively for either centralized or decentralized monitoring. Because telemetry data is accessible enterprise-wide, patients can be placed flexibly throughout the organization while being monitored with ApexPro CH. Nurses are freed to focus on patient care with the confidence that their patients are receiving continuous, quality monitoring.

Whether you choose centralized or decentralized monitoring, ApexPro CH can support your hospital protocol for continuous patient surveillance.

Patient monitoring no longer operates in a silo. Ease of use and continuous, connective flow of patient data make wireless patient monitoring simpler and more efficient. ApexPro CH puts vital information in caregivers' hands wherever they are, at the moment they need it most.

Reference:
1. "Ventricular Arrhythmia Detection Performance of Two Commercially Available Patient Monitors Using Previously Unpublished ECG Waveforms." Nicole Haupt, BSEE; Jennifer A. Bowman, MSEE; Jennifer Salvo, BSCE; David A. Sitzman, MSEE; R. Gary Earl, PhD; and George M. Hutchinson, PhD.

Healthcare Re-imagined

GE is dedicated to helping you transform healthcare delivery by driving critical breakthroughs in biology and technology. Our expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, and biopharmaceutical manufacturing technologies is enabling healthcare professionals around the world to discover new ways to predict, diagnose and treat disease earlier. We call this model of care "Early Health." The goal: to help clinicians detect disease earlier, access more information and intervene earlier with more targeted treatments, so they can help their patients live their lives to the fullest. Re-think, Re-discover, Re-invent, Re-imagine.

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