

**ZOLL**<sup>®</sup>



HOSPITAL  
**RESUSCITATION**  
Innovation, Integration, and Impact

# IMPACTING OUTCOMES, LINK BY LINK.

When hospitals examine their processes, gaps in resuscitation care quickly become evident; improvement is possible and necessary. Finding ways to deliver consistent, high-quality CPR, responding rapidly throughout a hospital, and accurately measuring performance are just the beginning. Impacting outcomes takes an integrated approach that addresses and strengthens each link of the Chain of Survival. Hospitals must also add new links that address early detection and post-resuscitation care.

## **Addressing a single link is never enough.**

- Medical Emergency Teams need tools to identify and manage at-risk patients.
- Caregivers must have the technology to deliver high-quality CPR, rapid defibrillation, and ALS care with confidence.
- Patients who survive an arrest must receive optimal post-resuscitation care and protection.
- Quality managers need information to measure performance in order to improve it.
- A foundation of training and education and a commitment to continuous improvement add strength to each link.

**THIS IS RESUSCITATION.  
THIS IS ZOLL.**

ZOLL® helps to strengthen the Chain of Survival by providing superior technology while remaining a trusted and dependable partner to hospitals in the treatment and care of sudden cardiac arrest patients. ZOLL's products provide the quality and reliability you expect. Our innovative solutions comprise a fully integrated resuscitation system with all of the tools you need to impact outcomes.



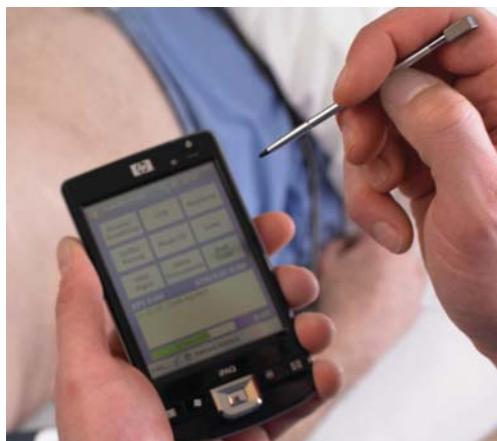
### Early Intervention

Studies show that many patients who arrest in-hospital have been signaling their distress for several hours before the event. Medical Emergency Teams (METs) assure early identification and appropriate intervention.

- **CodeNet®**, our electronic code documentation system, can be used to document MET calls.
- **LifeVest® Wearable Defibrillator** offers the ultimate in non-invasive protection for patients at risk for future arrhythmic events.
- **RescueNet® 12-Lead** is a Web-based, 12-lead management system.



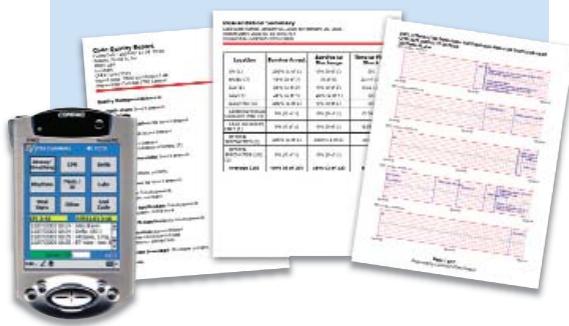
LifeVest®



### Early Access

Time to response is a critical factor affecting patient outcomes, but actually determining accurate times is difficult.

- **CodeNet** captures real-time response and synchronizes it with all ZOLL device records.
- **CodeNet** also allows you to capture and review response time hospital-wide, enabling you to ensure early access everywhere.



CodeNet®



### Early CPR

Nearly 75 percent of in-hospital arrests present in a nonshockable rhythm; quick and effective CPR is the first line of defense.

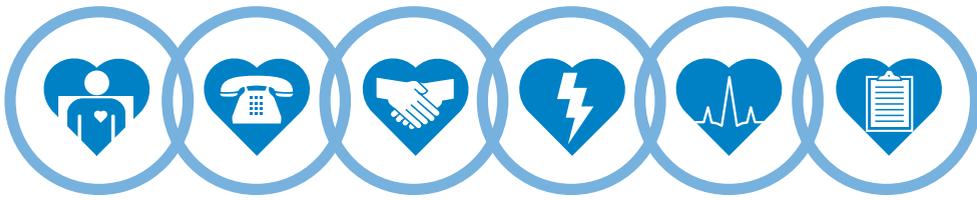
- ZOLL offers **Real CPR Help®** with **every** defibrillator to help clinicians deliver CPR at the correct rate and depth, in real time.
- The **AED Pro®** and **R Series®** also feature **See-Thru CPR®**, which minimizes the duration of pauses during CPR by filtering out compression artifact so rescuers can see an underlying organized rhythm.
- The **AutoPulse®** Non-invasive Cardiac Support Pump delivers effective customized compressions to provide the best opportunity to protect the heart and vital organs. AutoPulse generates near-normal perfusion, moving more blood more consistently than ever before.



AED Plus®



AutoPulse®



Early Intervention    Early Access    Early CPR    Early Defibrillation    Early ALS    Post-Resuscitation Care



### Early Defibrillation

The time to first defibrillation is critical for the patient in VF/VT, and recent Get With the Guidelines® data indicate that survival to discharge declines within two minutes. When first responders easily deploy AEDs and deliver a shock when advised, more patients benefit from ALS interventions.

- **R Series® Plus** is a fully functional manual defibrillator that powers on as an AED. Ideal for first responders who are BLS trained and may be reluctant to use a manual defibrillator.
- **AED Plus®** and **AED Pro** with pre-connected electrodes provide BLS responders with a simple, cost-effective means to treat these highly salvageable patients.
- For the patients with non-shockable rhythms, the built-in **Real CPR Help®** in the **AED Plus** and the **AED Pro** guides CPR performance to optimize myocardial and cerebral perfusion.



### Early ALS

Superior ZOLL technology helps the ALS provider deliver the best care.

- ZOLL's low-energy **Rectilinear Biphasic™ waveform** delivers more current than any biphasic waveform, at the lowest energy setting to minimize myocardial damage!
- The unique ZOLL 40-msec **constant current pacing** waveform provides twice the capture at half the current<sup>2</sup>.
- The **automatic self-test feature** of the **R Series** ensures the defibrillator is always **Code-Ready®**.
- A full spectrum of **parameters** assists with ALS intervention: EtCO<sub>2</sub>, SPO<sub>2</sub>, NIBP, IBP, temperature, and even 12-lead ECG are available on ALS defibrillators.



### Post-Resuscitation Care

It has become increasingly evident that post-resuscitation care is a vital new link in the Chain of Survival. Goal-directed therapy, including fever control, fluid management, EEG monitoring, and glucose control, show great promise in improving outcomes for survivors of SCA.

- ZOLL offers technology for temperature management and for controlled delivery of IV fluids and blood. We continue to explore other technologies that can be effective in post-resuscitation care.



AED Pro®



R Series®





**ZOLL®**

# Why ZOLL?

Resuscitation has been our focus for more than a quarter of a century. Our innovations and technology simplify interventions, increase efficacy, enhance product reliability, and reduce the potential for errors during care. Our commitment goes beyond delivery of a product:

- From Smaller, Lighter, Brighter to Simple, Smart, and Ready, ZOLL defibrillators are available in many models and with many choices in features and functions to address the unique needs of hospitals and clinicians everywhere. At the same time, all of our crash cart defibrillators use the same operating system, so users trained on one ZOLL device can operate different models, regardless of model changes, with confidence.
- Since 2002, ZOLL has offered Real CPR Help, real-time feedback on CPR quality, on its AEDs; today Real CPR Help is available on all of our defibrillators.
- Biomedical and asset management utilities bring efficiency and cost-effectiveness to product ownership and maintenance. Wireless communication capability enhances data capture and management as well as ease troubleshooting. Depot Service keeps downtime to a minimum and reduces costs as well.
- Interactive online training helps maintain staff skills 24/7 at a minimal cost to hospitals and with minimal impact on FTEs. Educators can utilize a variety of customizable tools at little or no cost, and CEU/CME programs help staff maintain certifications.
- ZOLL develops products with and for clinicians. Our commitment to and focus on resuscitation science has led to breakthrough technologies, such as transcutaneous pacing, preconnected defibrillation electrodes, pediatric algorithms, See-Thru CPR, the AutoPulse Non-Invasive Cardiac Support Pump, and a high-current Rectilinear Biphasic defibrillation waveform.

**And there is more to come.**

<sup>1</sup>Tang W, et al. *J Am Coll Cardiol.* 1999;34:815–822.

<sup>2</sup>Zoll PM, et al. *Circulation.* 1985;5:937–44.

ZOLL Medical Corporation develops and markets medical devices and software solutions that help advance emergency care and save lives, while increasing clinical and operational efficiencies. With products for defibrillation and monitoring, circulation and CPR feedback, data management, fluid resuscitation, and therapeutic temperature management, ZOLL provides a comprehensive set of technologies that help clinicians, EMS and fire professionals, and lay rescuers treat victims needing resuscitation and critical care.

A NASDAQ Global Select company and a three-time Forbes 100 Most Trustworthy Company, ZOLL was designated in 2011 as one of Forbes Top 100 Small Public Companies in America with annual revenues under \$1 billion. ZOLL develops and manufactures its products in the United States, in California, Colorado, Illinois, Massachusetts, Pennsylvania, and Rhode Island. More than 400 direct sales and service representatives, 1,100 business partners, and 200 independent representatives serve our customers in over 140 countries around the globe. For more information, visit [www.zoll.com](http://www.zoll.com).

**ADVANCING  
RESUSCITATION.  
TODAY.®**

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