ZOLL®

RESEARCH TO REALITY

Dear Shareholders, Customers, and Employees:

As we mark the 30th anniversary of ZOLL's incorporation, we are pleased to report that against challenges of a difficult economic background and the uncertainties for the U.S. healthcare system, ZOLL made solid progress in fiscal 2010. Our bottom line grew strongly as our core business rebounded modestly in the United States and more notably internationally. We attribute this growth to our ongoing commitment to finding new and improved ways to advance resuscitation and critical care technologies. By developing innovative and diversified product lines, opening new markets internationally, and supporting research important to the success of our products, we are continuing to set new standards in making practical improvements to help save lives.

Financial Highlights for Fiscal 2010

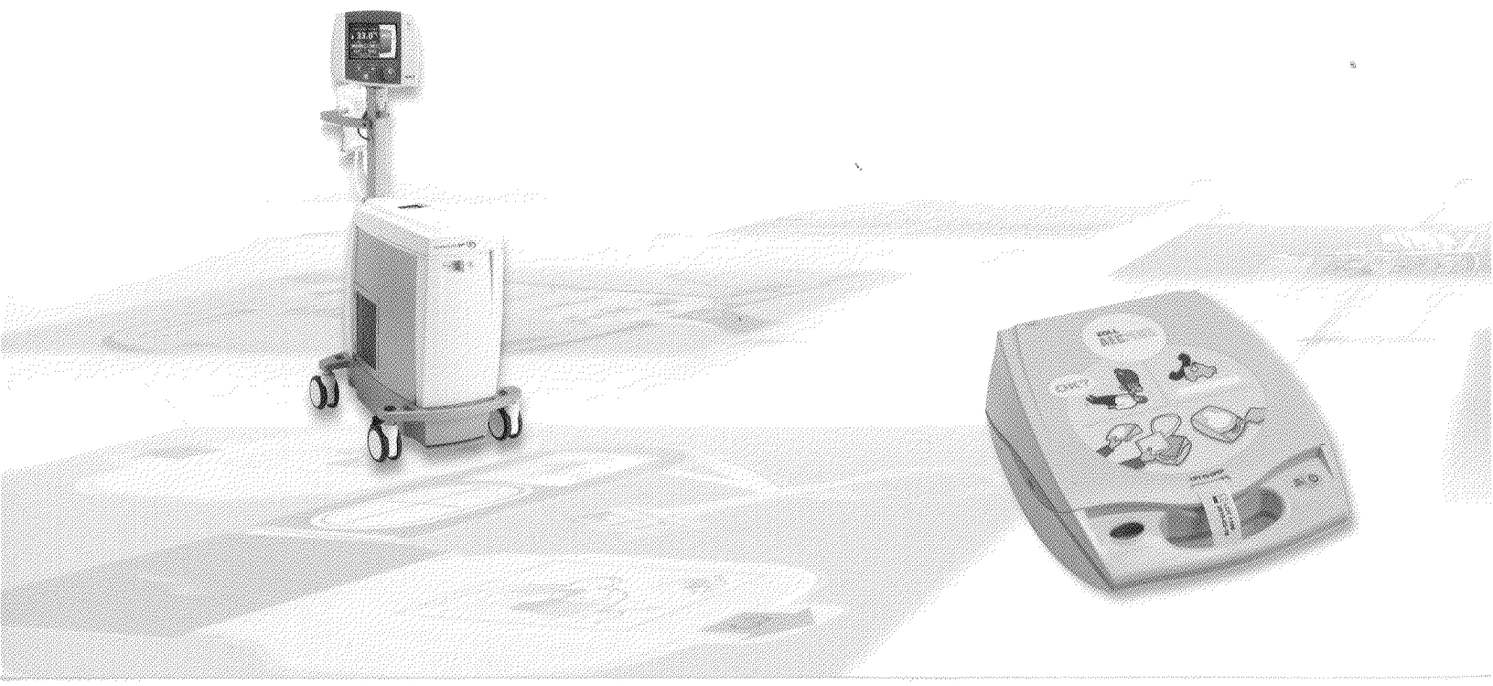
- Revenue increased 15% to $444 million, predominantly because of our diversified product line and our international business.
- LifeVest® revenues increased 61% to $71 million.
- Our Temperature Management business contributed revenues of $19 million.
- International sales increased 18% to $115 million on strong growth in AEDs and rising sales in the Temperature Management business.
- We finished fiscal 2010 with no debt and $62 million in cash, cash equivalents, and investments.

Growth Through Diversification

LifeVest Wearable Defibrillator and Temperature Management products helped drive our gains in 2010. We expanded our LifeVest sales force in the United States as well as established direct sales for the LifeVest in Germany. We also began a multi-year effort to gain regulatory approval for LifeVest in Japan. With a 98 percent first shock success rate and 92 percent shock event survival, LifeVest brings a clear benefit to patients that will continue to fuel its adoption in both the United States and abroad. We are committed to investing in market development for this product, which now saves a patient's life every other day in the United States.

We see significant potential in the Temperature Management business, in the long term, both domestically and internationally. Our direct sales force, coupled with our hospital sales force, has the opportunity to tap into a rapidly expanding market. We are also committed to clinical trials in the United States to expand indications for use that can drive revenue growth.

With the September 2010 release of our Propaq® MD monitor/defibrillator and the soon-to-be-released Propaq M monitor, we are well-positioned to capture growth in worldwide military and air medical markets. The need to replace and upgrade devices creates substantial business opportunities. The Propaq MD, which was sold to Swiss Air-Rescue, Rega, of Zurich, Switzerland, and Phoenix, Arizona-based PHI Air Medical in the fourth quarter, complies with rugged military standards in monitoring and defibrillation in one of the smallest, most lightweight devices.



More Opportunities than Ever for AEDs

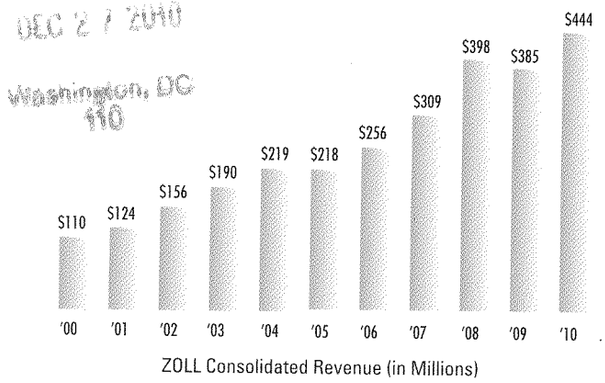
We logged the largest-ever order for the AED Plus®—5,000 units in Brazil. We also received approval from the Japanese Pharmaceutical and Medical Devices Agency to import and distribute both the AED Plus and AED Pro® in Japan. In addition, ZOLL was designated a nominated supplier by the British Heart Foundation for the AED Plus and AED Pro. ZOLL's share of the global AED market continues to expand as a result of this type of adoption in some of the world's largest healthcare markets.

Improvements in Care Through Product Research

2010 marks the 50th anniversary of modern resuscitation with the discovery of cardiopulmonary resuscitation (CPR). It is natural to reflect on this amazing advance and the decisive milestones that followed in helping to save tens of thousands of lives over this half century.

Improvements in survival would not have been achieved without the perseverance of researchers like Paul Zoll, M.D., whose work spawned the Company he co-founded 30 years ago.

In fiscal 2010, we increased our investment in research and development by 16 percent as we expanded our Clinical Affairs team and continued funding efforts both large and small to develop the best technologies and products for our customers. On the following pages, you can review how we explore, establish, and evolve the resuscitation and critical care fields through research and practical product applications to help save lives around the globe.



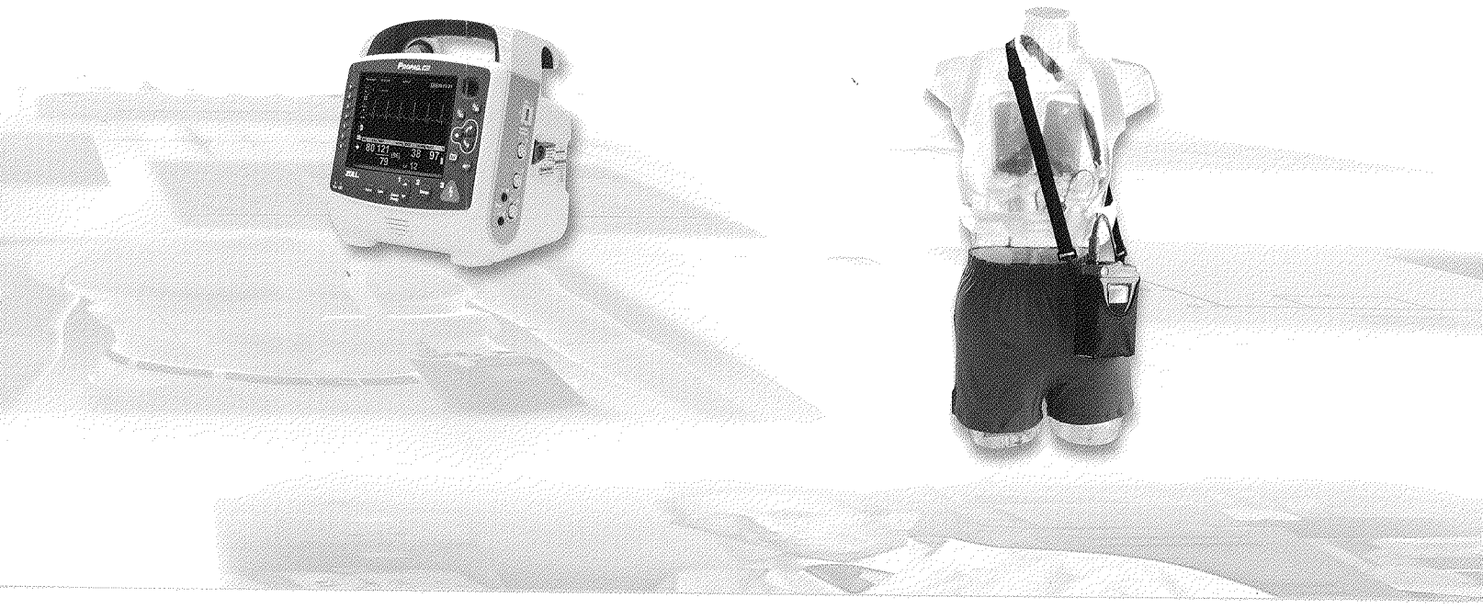
ZOLL Consolidated Revenue (in Millions)

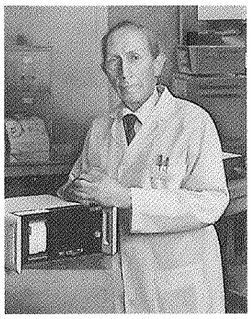
During 2010, the American Heart Association and European Resuscitation Council issued new worldwide resuscitation Guidelines that establish the latest standards of care and lay out a roadmap for improving resuscitation and survival. We are happy to see that many of our products and technologies have been reflected in these Guidelines. We remain steadfast in our mission to invest in and advance resuscitation and critical care technologies.

Thank you to our shareholders, customers, employees, and business partners for your continued support.

Sincerely,

Richard A. Packer
Chief Executive Officer
December 2010

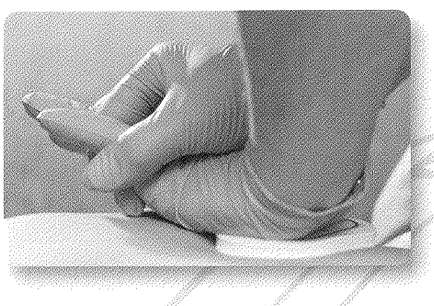


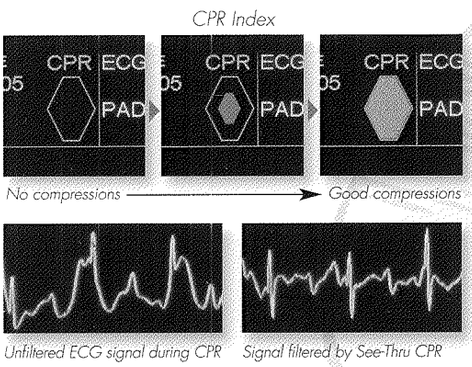


Dr. ZOLL with his first external pacing system, the ZOLL NTP® 1000

Since our founding, ZOLL products have embodied innovation and brought new capabilities to our customers.

The pioneering spirit of Dr. ZOLL and his commitment to advancing cardiac care live on in new products that solve problems and benefit patients. ZOLL's technological advances are detailed in many clinical presentations and peer-reviewed journal articles that demonstrate improved outcomes. Continued research and development, engineering, and the ability to make strategic acquisitions of technologies and products with long-term potential to improve resuscitation help us drive new standards of care. Staying ahead of trends in resuscitation and patient care, exercising patience and persistence—and listening to our customers—have enabled ZOLL to transform ideas in research into the reality of technologies, with features that set our products apart.





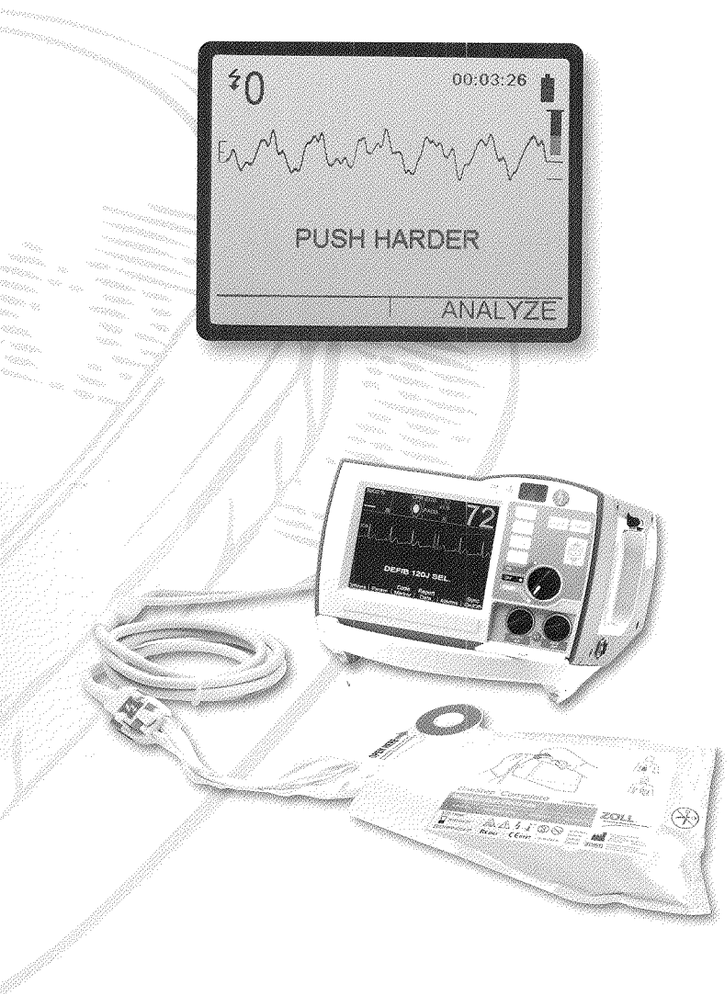
Real CPR Help and See-Thru CPR

Real CPR Help® and See-Thru CPR® are integral to a "resuscitation bundle" that is creating a new paradigm in care at the University of California San Diego Medical Center.

Pushing the Envelope on Compressions: Real CPR Help and See-Thru CPR

Over the last decade, the understanding of the importance of high-quality CPR to resuscitation success has increased. In the late 1990s, when developing our first automated external defibrillator (AED), we recognized the difficulties all rescuers face in providing quality CPR. This skill is used infrequently and, even with training, quality deteriorates quickly after just a few months. ZOLL researchers developed a unique new application of accelerometer technology to measure CPR depth and rate, and provide information to rescuers. This proprietary technology was introduced as Real CPR Help—an industry first. It coaches rescuers when they're performing CPR, helping them achieve the correct depth and rate. We now provide this Real CPR Help feature in virtually all our defibrillation products.

Research increasingly shows that whether you're a professional or just a Good Samaritan, the quality of CPR can be improved by the real-time feedback this type of technology offers. Voice and visual prompts, such as "Push Harder", and a metronome to set the correct rate can guide rescuers to provide better quality CPR.



A 2009 study supported by ZOLL, which involved 30 U.S. hospitals, found that a large number of staff have difficulty performing compressions to American Heart Association (AHA) standards, but when study participants were aided by ZOLL's Real CPR Help technology, the percentage of chest compressions that met AHA parameters improved dramatically.[1] The recently released 2010 AHA/European Resuscitation Council (ERC) CPR Guidelines further stress the importance of high-quality CPR—and of minimal interruptions. Interruptions reduce the effectiveness of rescue efforts and often compromise survival. ZOLL products, based on our research in this area, give rescuers a unique advantage.

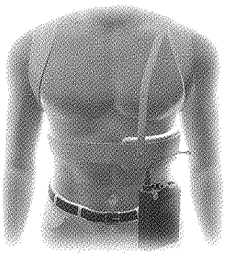
An editorial in the journal *Circulation* in 2005 encouraged the development of AEDs capable of analyzing the heart rhythm during uninterrupted chest compressions.[2] At that time, the ZOLL research team was well on its way to delivering See-Thru CPR technology that helps to meet the challenge of rhythm analysis while performing uninterrupted CPR.

Without See-Thru CPR, rescuers must repeatedly interrupt CPR to check the patient's underlying cardiac rhythm (ECG) to determine whether an organized, "shockable" ECG rhythm has developed or whether defibrillation has been successful. CPR has to be stopped because the compressions themselves result in artifacts that distort the read-out. Based on extensive analysis of ECGs with CPR artifacts collected on ZOLL AEDs, our team developed advanced signal processing and filtering technology that allows rescuers to clearly see the patient's cardiac rhythm during CPR.[3]

ZOLL defibrillators with See-Thru CPR and Real CPR Help contributed to research at the University of California San Diego (UCSD) Medical Center, which focused on a "resuscitation bundle" as a new paradigm of care. Daniel Davis, M.D., UCSD resuscitation director, detailed the success of this program at the AHA Resuscitation Science Symposium in 2009. With this multi-pronged approach in place, he reported that patients who suffer in-hospital cardiac arrest are now three times more likely to survive, and twice as likely to survive with good neurological outcome, compared with outcomes before implementation of this new program in 2007.[4]

Since its release in 2007, See-Thru CPR—another industry first—has made minimizing interruptions a reality.

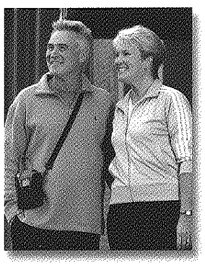
Fostering Technology to Improve the Standard of Care: LifeVest



Fifteen years ago, ZOLL's confidence in work led by M. Stephen Heilman, M.D., and investments by ZOLL helped bring about research that would eventually give rise to the ZOLL LifeVest® wearable defibrillator. Following three years of extensive testing in 17 major medical centers, this first—and still only—wearable defibrillator was cleared by the FDA in 2002. Two years later, ZOLL made an investment in the LifeVest, and in 2006 acquired the technology and began an extensive program to bring it to more physicians and patients.

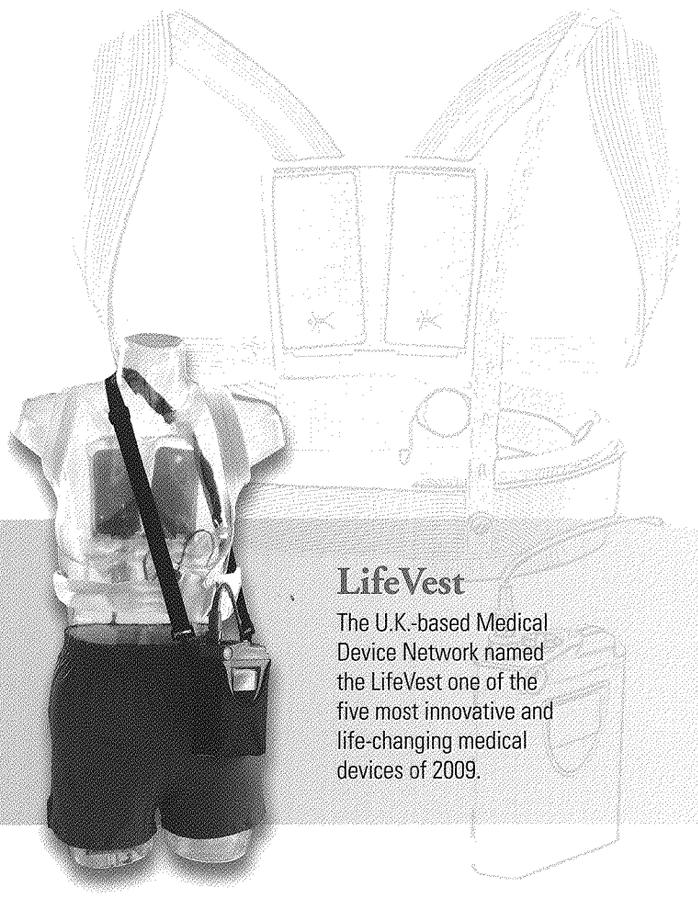
LifeVest prescriptions passed the 30,000 mark in fiscal 2010. Nearly 500 "saves" have been recorded among patients wearing this unique device. These results, and our unwavering confidence in the technology and the research that created it, validate our 15-year commitment when considering its potential and the many thousands of patients whose lives will be saved.

Mina Chung, M.D., and colleagues from the Cleveland Clinic reported on 3,500 individuals prescribed a LifeVest over a four-year period in the *Journal of the American College of Cardiology*.[5] The LifeVest proved to be a reliable bridge to long-term ICD (implantable cardioverter–defibrillator) implantation. In fact, 99 percent of those who experienced sudden cardiac arrest while wearing the LifeVest were successfully converted to a normal rhythm.



Currently, the University of California San Francisco's Jeffrey Olgin, M.D., is leading a study called VEST (Vest prevention of Early Sudden death Trial) to evaluate the effectiveness of the LifeVest at treating arrhythmias in patients who have had a recent heart attack.

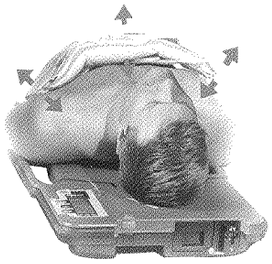
With a 98 percent first shock success rate, growing physician knowledge, and increasing prescriptions, as well as high patient acceptance and compliance, the LifeVest is creating a new reality—survival from sudden cardiac arrest.



LifeVest

The U.K.-based Medical Device Network named the LifeVest one of the five most innovative and life-changing medical devices of 2009.

Moving Toward a New Standard of Care: AutoPulse



New techniques to provide temporary circulation during cardiac arrest originated more than a decade ago. The work that made this possible included research on the mechanisms of blood flow during CPR, thoracic pressures during compressions, and other means of improving blood flow with artificial circulation.

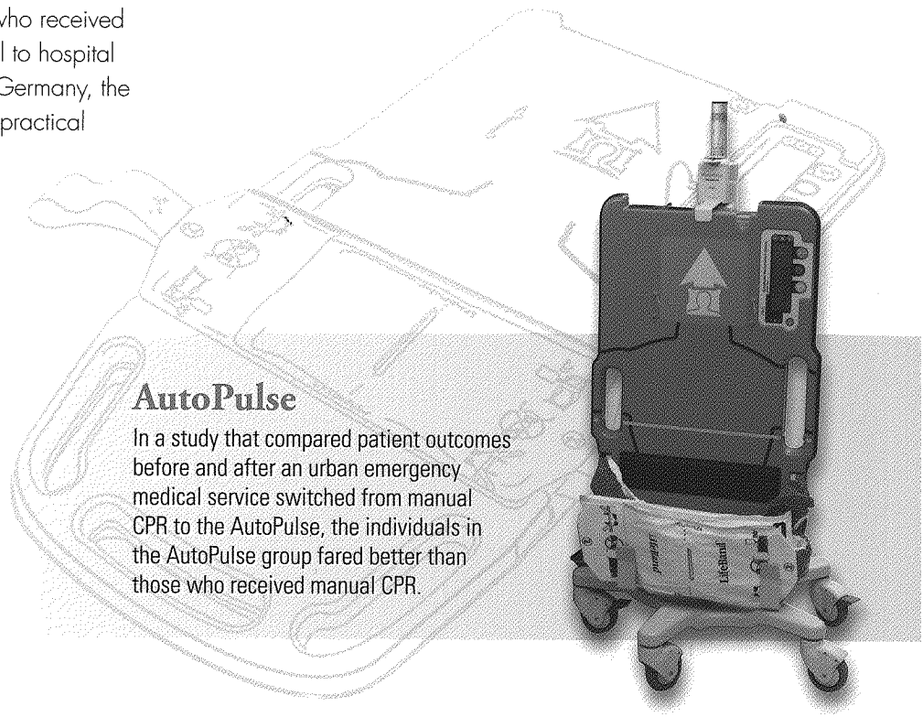
Backed by detailed research and studies in animals, a California-based start-up was focused on developing "load-distributing band" technology, designed to provide mechanical chest compressions. ZOLL's interest was piqued by early clinical studies of this technology, which demonstrated a new, unequaled means of providing blood flow during cardiac arrest. More studies followed, and by 2003, the FDA had granted market approval, and ZOLL entered into an agreement with the company to commercialize the newly approved device, the AutoPulse®. After supporting efforts to bring this breakthrough product to market, and convinced of the merit it held, ZOLL acquired the company a year later.

A lot has happened since the publication of a 2004 paper in *Resuscitation* that described improved hemodynamic performance with a "novel" chest compression device.[6] In a study by Ong et al. that compared patient outcomes before and after an urban emergency medical service (EMS) switched from manual CPR to the AutoPulse, the individuals in the AutoPulse group fared better than those who received manual CPR, as measured by improved survival to hospital discharge.[7] In another study, this one in Bonn, Germany, the AutoPulse was found to be effective, safe, and practical when used by the city's EMS staff.[8]

Especially important today is the CIRC (Circulation Improving Resuscitation Care) randomized clinical trial that ZOLL is supporting. More than 3,500 patients have been enrolled to date. We believe CIRC is the largest ever non-government sponsored resuscitation trial. This research will determine whether the AutoPulse can improve long-term survival among individuals who suffer out-of-hospital cardiac arrest when compared with manual CPR. Because CIRC is a randomized clinical trial, the gold standard in research, it will yield the highest level of clinical evidence possible.

The hands-free nature of AutoPulse has the added benefit of contributing to a safer environment in the back of an ambulance, since automated CPR eliminates the need for emergency responders to stand up in a moving vehicle. Emergency personnel are at significant risk of losing their balance 60 percent of the time, according to recent data researchers collected using a Road Safety® onboard monitoring system, a new vehicle technology acquired by ZOLL in 2010.[9] This study also found that loss of balance may result in poor-quality CPR.

With an increased emphasis on safety and high-quality CPR, both safer ambulance operations and improved blood flow and quality during CPR are now a reality, making the once "novel" AutoPulse technology an integral component of care.



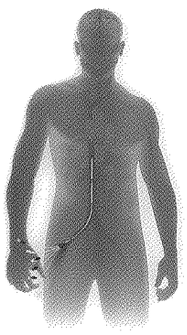
AutoPulse

In a study that compared patient outcomes before and after an urban emergency medical service switched from manual CPR to the AutoPulse, the individuals in the AutoPulse group fared better than those who received manual CPR.

Bringing Emerging Technology to the Fore: IVTM

As a post-resuscitation treatment, therapeutic hypothermia has been a focus of development at ZOLL. In 2007, we acquired research, patents, and technology related to the speed with which therapeutic hypothermia and warming could be achieved.

Our work in this area continues, motivated by the clinical benefits inherent in the ability to precisely warm and rapidly cool patients more quickly and more accurately than external techniques, such as ice or cooling blankets. Convinced of the value of this new approach, we added a commercial device and catheters with the acquisition of the assets of Alsius Corporation in 2009, enabling us to bring this technology to a broader market sooner than would be possible through our own investments in research and development. Today, we are providing a growing number of customers with an expanding range of catheters and cooling and warming devices to support Intravascular Temperature Management (IVTM™).

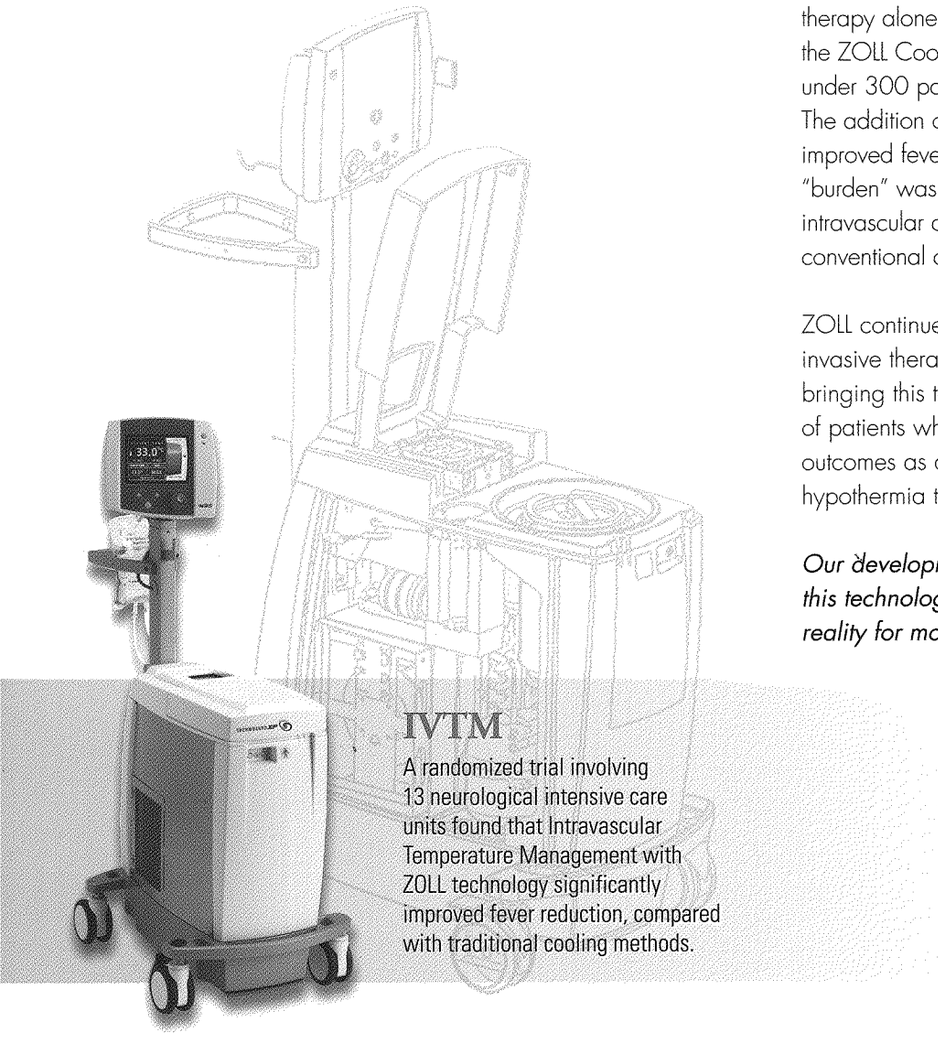


IVTM gives healthcare providers the ability to rapidly, safely, and effectively manage the core body temperature of critically ill or surgical patients. Trauma surgeons at Baylor University Medical Center, who used the ZOLL IVTM system to warm critically injured patients suffering from hypothermia,[10] reported on their experience in 2008, citing the ease of operation and system mobility, as well as the fact that only minimal supervision is needed once the target temperature is set. They concluded that this method of rewarming is a "practical, automated technique for the immediate and continuous treatment of hypothermia in all phases of the acute care of trauma patients."

In managing fever in patients with traumatic brain injury and other acute neurologic illness, IVTM may have many patient benefits. A randomized trial, which included 13 neurological intensive care units, compared conventional fever management therapy alone to this therapy plus intravascular cooling using the ZOLL CoolGard® 3000 and the Cool Line® catheters. Just under 300 patients were enrolled during the 20-month study. The addition of the catheter-based cooling system significantly improved fever reduction.[11] Overall, the reduction of fever "burden" was 64 percent greater for individuals in the intravascular cooling group, compared with those in the conventional cooling group.

ZOLL continues its research and product development in invasive therapeutic hypothermia. We are committed to bringing this technology to an ever-expanding number of patients who could potentially see improved clinical outcomes as a result of more widespread use of this hypothermia treatment.

Our development efforts and research in this area will drive this technology as a standard of care and help to make it a reality for more and more patients.



IVTM

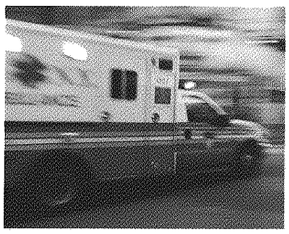
A randomized trial involving 13 neurological intensive care units found that Intravascular Temperature Management with ZOLL technology significantly improved fever reduction, compared with traditional cooling methods.

Harnessing Data: A Growing Portfolio of Software Solutions

Collecting data is at the heart of research that has the potential to improve clinical practice. ZOLL defibrillators and RescueNet® Code Review software have been integral to studies analyzing the quality of chest compressions. Using this technology, EMS agencies in Flagstaff and Mesa, Arizona, collected and compared data on the quality of chest compressions at the scene of a resuscitation attempt with CPR provided during patient transport. The data recorded showed that variability in chest compression during transport affected CPR quality.[12]

Research related to the operation of ambulances and the positive impact that advances can have on patient care and safety are growing areas of interest. RescueNet® Road Safety is a new addition to ZOLL's data solutions. This system, already used in more than 4,000 public safety vehicles nationwide, provides real-time feedback to help drivers avert an accident. For example, if the driver is speeding or approaching an unsafe condition, such as hard cornering, the system will issue an audible alert. Designed with critical input from paramedics and other professionals, Road Safety encourages a safer ambulance environment during patient treatment. It also records vehicle operating data for later analysis, which can be used to reduce fuel and maintenance costs.

A white paper documents the experience of one metropolitan EMS group when it equipped 36 vehicles with RescueNet Road Safety technology.[13] During an 18-month period, seat belt use and overall driver safety improved significantly, and vehicle maintenance costs decreased by 20 percent within six months of installation. Road Safety International software and related assets were acquired by ZOLL shortly after the close of fiscal 2010.



With our commitment to be the leading provider of resuscitation data systems to hospitals and EMS agencies, this research and technology offer the reality of saving the lives of both patients and staff by enhancing safety while also decreasing operating costs.

Road Safety

One metropolitan EMS group reported that during an 18-month period, seat belt use and overall driver safety improved significantly, as vehicle maintenance costs decreased by 20 percent within six months of installing RescueNet Road Safety.

Summary

Always current on the latest science and emerging trends, we continue to carry on the legacy of Dr. Zoll, research-driven product innovation. Our 15-year commitment to the development of the LifeVest is testament to our unrelenting pursuit of new technology with a tremendous payoff—more lives saved. Because of the LifeVest, a person is saved every other day in the United States. And through ongoing research initiatives like those that brought us Real CPR Help and See-Thru CPR, we are focused on maintaining our leadership role in delivering new products and features to the market that improve patient outcomes. With patients and shareholders in mind, ZOLL also seeks to explore opportunities to expand and further diversify our product portfolio.

[1] Peberdy MA, Silver A, Ornato JP. Effect of Caregiver Gender, Age, and Feedback Prompts on Chest Compression Rate and Depth. *Resuscitation*. 2009;80:1169–74.

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[3] Tan Q, Freeman GA, Geheb F, Bisera J. Electrocardiographic Analysis during Uninterrupted Cardiopulmonary Resuscitation. *Crit Care Med*. 2008;36:S409–412.

[4] Sell RE, Lawrence B, Davis DP. Implementing a "Resuscitation Bundle" Decreases Incidence and Improves Outcomes in In-Patient Cardiopulmonary Arrest. *Circulation*. 2009;120:S1441.

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[7] Ong MEH, Ornato JP, Edwards DP, Dhindsa HS, Best AM, Ines CS, Hickey S. Use of an Automated, Load-Distributing Band Chest Compression Device for Out-of-Hospital Cardiac Arrest. *JAMA*. 2006;295;22:2629–2637.

[8] Krep H, Mamier M, Breil M, Heister U, Fischer M, Hoeft A. Out-of-Hospital Cardiopulmonary Resuscitation with the AutoPulse System: A Prospective Observational Study with a New Load-Distributing Band Chest Compression Device. *Resuscitation*. 2007;73:86–95.

[9] Dante SA, Herken U, Hammer T, Kurz MC. Abstract P73: Description of the Acceleration Forces Affecting Balance of Pre-hospital Providers While Delivering Cardiopulmonary Resuscitation. *Circulation*. 2009;120:S1456.

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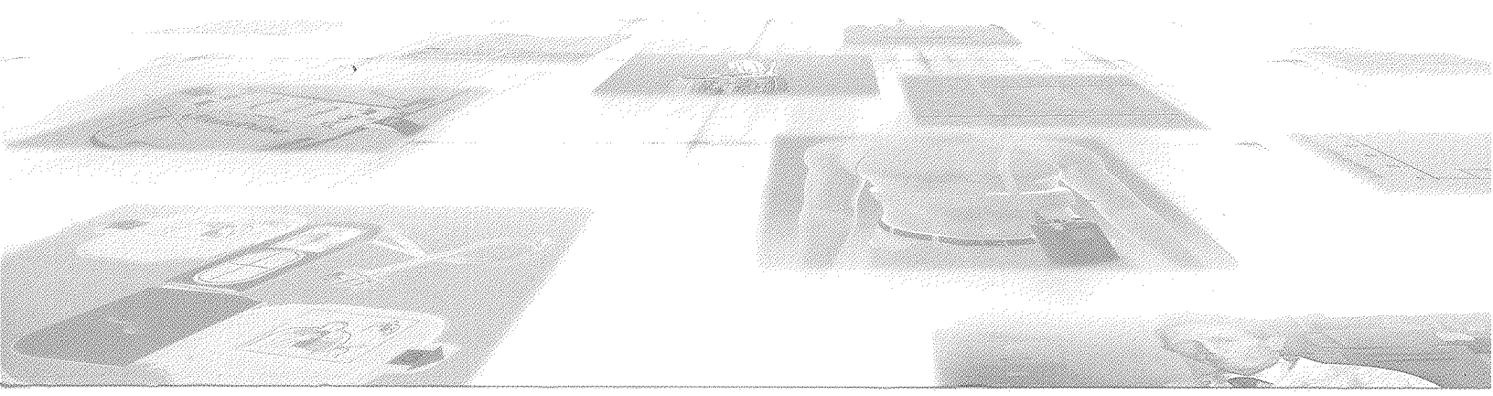
[12] Bobrow B. Increased CPR Variability During Ground Ambulance Transport of Patients in Cardiac Arrest. Best presentation at the National Association of EMS Physicians 2010 Conference.

[13] Available at: http://www.roadsafety.com/articles/RS%20White%20Paper.pdf. Accessed 10.28.2010.



Stock Listing
ZOLL Medical Corporation Common Stock is traded on the NASDAQ Global Select Market under the symbol "ZOLL."

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Counsel
Goodwin Procter LLP
Boston, Massachusetts

Independent Registered Public Accounting Firm
BDO USA, LLP
Boston, Massachusetts

Annual Meeting
The annual meeting of stockholders will be held at 10:00 a.m. on February 10, 2011, at Goodwin Procter LLP, Conference Center, Exchange Place, 53 State Street, Boston, Massachusetts.

Information Requests
This document, along with our Form 10-K, constitutes ZOLL's 2010 Annual Report. If there is no Form 10-K included, you may request a copy, as filed with the Securities and Exchange Commission. Our 2010 Annual Report, quarterly reports on Form 10-Q as filed with the Securities and Exchange Commission, as well as other investor materials, may be downloaded from the ZOLL website, www.zoll.com, or obtained upon written request.

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