



# DATA INSIGHTS FOR IMPROVED PATIENT CARE

# POWERFUL TOOLS FOR DATA-DRIVEN DEBRIEFING





SECURE SYSTEM

FILES IMMEDIATELY AVAILABLE NO DATA CARDS OR CABLES RescueNet CodeNet combines two essential tools for event debriefing and data documentation: RescueNet CaseReview and RescueNet CodeWriter.

#### Simplified Data Collection

RescueNet® CaseReview collects, analyzes, and manages code data to improve accuracy and simplify debriefing. With the push of a button, you can send files from the R Series®, X Series®, or ZOLL AED 3® BLS using the hospital's secure WiFi network. There's no need to attach cables or retrieve data cards. You can immediately access accurate, robust data that's needed to complete the performance-focused, data-driven debriefing after every adult and pediatric cardiac arrest, as recommended by the American Heart Association (AHA).

The CPR Summary Report, included in RescueNet CaseReview, provides at-a-glance CPR quality for individual codes. It can be accessed, saved, emailed, and printed in minutes; it can also be used with code teams immediately after a code to help facilitate datadriven hot debriefs of the resuscitation event.

#### Trendsetter

RescueNet CaseReview can also provide trend reports on resuscitation events. These reports can be created through customized tags to review trends by patient type (i.e., pediatric versus adult), co-morbidity, department where the code occurred, or even by the time of day or week that the event occurred. A detailed file can be exported into Microsoft® Excel for a deeper dive into data analytics.





"It is reasonable for in-hospital systems of care to implement performance-focused debriefing of rescuers after IHCA (in-hospital cardiac arrest) in both adults and children (Class IIa, LOE C-LD).<sup>1</sup>"

-American Heart Association

#### Hot or Cold

Whether in a mock code as part of training, or an actual code team response to a sudden cardiac arrest, RescueNet CaseReview provides instant access to critical code data. This allows you to huddle with your team immediately after the event while it is still fresh in everyone's mind, and offer peace-of-mind that everyone performed to the best of their ability. Data-driven hot debriefing is as simple as clicking on the specific case from a list in your browser.



# ACCURATE AND LEGIBLE DOCUMENTATION

The chaos of the code is over. Have you captured the important data for debriefing?

#### Simplified Data Documentation

Documenting a code requires immediate, accurate recording of critical information. And under the stress of the code, capturing key data can be challenging, resulting in inaccuracies due to:

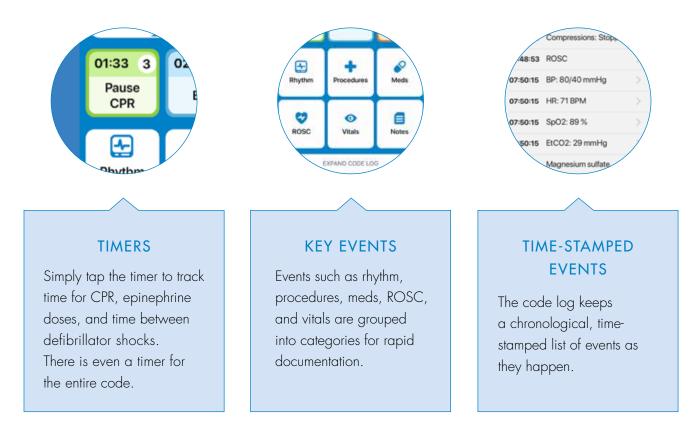
- Illegible hand-written documentation via paper and pen
- Misspelled words and incorrect medication doses
- Lack of experience particularly if the documenter is not ACLS trained
- Varying documentation formats

The ZOLL RescueNet® CodeWriter documenter is an easy-to-use application for mobile phones or tablets that simplifies code data documentation. When used with RescueNet CaseReview, RescueNet Codewriter not only captures essential code data, but also helps ensure documentation accuracy with options such as timer, vitals, and key event buttons. Simply launch the app and tap the Start New Code button to get started.





### RescueNet CodeWriter eases code documention challenges with:



# TIMING IS EVERYTHING

Using WiFi, the code data collected from the R Series or X Series defibrillator can be merged and time-synced with the documentation of events captured into one code record using RescueNet CodeWriter, then viewed on a PC. No more guessing when a drug was administered during the cardiac arrest event or how many doses of epinephrine were administered.

Using RescueNet CaseReview, a multidisciplinary team is able to review a code in real time, including the ECG and the arrhythmia; RescueNet CaseReview helps determine if the appropriate therapies were provided. If concerns related to protocol or practice were raised during the code debriefing, the electronic information can be assessed by the team, and the issue can be proactively corrected for future resuscitations.

#### Complete Code Documentation

RescueNet CodeWriter captures crucial data points in a resuscitation event: when compressions were initiated, how long compressions were in progress, and when compressions were stopped. More importantly, the pauses during CPR are captured. No need to transcribe illegible notes; RescueNet CodeWriter captures all the critical information and will merge with the defibrillator record.

#### Enhancing the CQI Process



#### RESCUENET CODEWRITER

Discovers the related R Series and X Series record on the server and presents a merged timeline. The linked records are sent via WiFi to the server.



#### r series AND X series

Pushes the code record via WiFi to the server where it is available to RescueNet CodeWriter and RescueNet CaseReview.



DATABASE SERVER Store defib files,

Store detib tiles, RescueNet CodeWriter files, and their links.

#### HOT DEBRIEF

Performed using the CPR Performance Summary in RescueNet CaseReview.



#### COLD DEBRIEF

Using RescueNet CaseReview, perform a CQI Review of defib/code log data and generate reports.



## **POWERFUL TOOLS** FOR QUANTITATIVE DEBRIEFING

#### Data Collected During a Code Event

CPR quality, ECG, and EtCO<sub>2</sub> values are succinctly presented in intuitive, colorful graphics. RescueNet CaseReview collects detailed CPR quality metrics directly from ZOLL CPR electrodes, using Real CPR Help® technology. The rate and depth of each compression is recorded, as well as release velocity, how often pauses in compressions occurred, and how long they lasted. In addition to immediate information after a single event, historical data can be reviewed and parsed to determine areas in need of improvement.

"We recommend data-driven, performancefocused debriefing of rescuers after IHCA in both adults and children (strong recommendation, low-quality evidence).<sup>2</sup>"

-ILCOR

#### CPR Knowledge is CPR Power

Many factors influence survival from sudden cardiac arrest – comorbidities such as heart disease, renal insufficiencies, diabetes, and chronic obstructive pulmonary disease (COPD) are just some of the major factors.

Even when your code team performs at its very best, there are factors that are too great to overcome. Knowing where the team was successful during the code and where there was room for improvement leads to better patient care in the future.

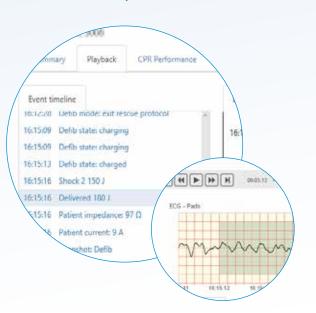
#### CPR QUALITY SUMMARY

Post event, review the CPR performance for the entire case. This quick glance allows code teams to determine how they performed overall as a team immediately after the event for impactful, inciteful, and timely feedback.

# 18.2

#### PLAY BACK THE ENTIRE CODE

Play back the complete code, including ECG rhythms, shocks delivered, CPR quality, or the capnogram. You can pause and restart the playback at any time or jump ahead to a specific event to review more details.



#### EDIT SELECT CODE PERIODS

The editing feature lets you select which periods of CPR you want to review – even down to the periods during pre-shock or post-shock. Annotations can be added to flag an important event during the code.

# RescueNet CodeNet makes it possible to answer questions such as:

- How does chest compression fraction differ in peak staffing periods vs. off-hours (nights and weekends)?
- What is the quality of pre-shock CPR in the ED versus the ICU?
- What is the average post-shock pause time?
- What is the average compression depth for pediatric patients? Does it differ from adults?
- What time were the first and second shocks delivered during the arrest?
- When were the first and second doses of epinephrine delivered?
- What was the survival to discharge?

#### Continuous Quality Improvement

Using RescueNet CodeNet, administrators can gain insight into hospital-wide performance and recommend department-specific or hospital-level improvements, such as staffing adjustments and implementation of rolling refreshers. Through preconfigured and customized reports, management can view summaries of the full set of events to shed light on trends and processes. Reports can be quickly generated, and progress can be tracked over time.



#### Access and Manage Your Clinical Data

RescueNet CodeNet, which combines RescueNet CaseReview and RescueNet CodeWriter, is easily installed inside the hospital firewall for secure data collection and review. A web-based interface allows anyone with log-in credentials to review case files and run trend reports. RescueNet CaseReview is an easy-to-use yet advanced tool designed to facilitate training and process improvement, which can improve outcomes from sudden cardiac arrest.

#### Secure, Cloud-hosted or In-premise Options Available

RescueNet CaseReview is available for your hospital using a secure, cloud-based system hosted on ZOLL's private network, ZOLL Online, or it can be installed on a secure server inside your hospital. Both systems work with RescueNet CodeWriter and provide a complete code documentation record that is time-synced with your defibrillator record.

<sup>1</sup>Robert W. Neumar, Part 1: Executive Summary 2015 AHA Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Circulation. 2015;132[suppl 2]:S334

<sup>2</sup>Farhan Bhanji, Part 8: Education, Implementation, and Teams 2015 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations. Circulation. 2015;132[suppl 1]: S256

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