# **Paediatric Solutions**



# Optimal Support for Paediatric Resuscitation

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# Because Children Are Not Just Little Adults

Too often, clinicians who treat children must adapt a device designed for adults because there isn't a paediatric version available. That's not the case with the ZOLL R Series<sup>®</sup> monitor/defibrillator, which has unique capabilities built into the defibrillator to optimise paediatric resuscitation. With smart, simple, and safe paediatric support, whether you need a solution for a paediatric department or an entire paediatric hospital, R Series offers the most extensive paediatric capabilities available in a professional defibrillator.



#### R Series Supports Paediatric Resuscitation

At ZOLL®, we recognise that the resuscitation needs of children differ from those of adults, so we provide a range of capabilities to support the special needs of the youngest patients.



#### CPR Support Optimises Perfusion and Reduces Interruptions

With the vast majority of paediatric arrests due to respiratory failure, the importance of high-quality CPR cannot be minimised. That's why the R Series monitor/defibrillator is the first device to provide a paediatric electrode with a built-in CPR sensor. It is difficult

to judge how hard you are pushing when performing CPR on a child, so the CPR Dashboard<sup>™</sup> reports the actual depth and rate of compressions delivered. A CPR timer gauges the CPR periods for optimal ventilation; a metronome activates during manual mode when the rate falls outside the recommended range of 100–120 compressions per minute; and an idle timer keeps staff aware of interruptions that compromise perfusion. All of the CPR information is displayed in a single location at the top of the screen for rapid assessment.

See-Thru CPR® is a proprietary filter that allows clinicians to see if an organized rhythm is developing during CPR, helping to reduce the duration of interruptions to perfusion and speeding time to shock when indicated.



### Paediatric AED Algorithm Adjusts for Paediatric Rhythms

In the event of an arrhythmic arrest, as soon as the paediatric electrodes are placed, the R Series monitor/defibrillator automatically adjusts its AED analysis algorithm to paediatric parameters. This reduces the likelihood that a compensating rhythm will be terminated and increases the chance that unique paediatric ECG morphology will be identified when a shock or cardioversion is indicated.

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#### Constant Current Pacing for Bradycardia

ZOLL's constant current pacer has been proven to deliver more capture with less current than competing devices, ensuring support for the bradycardia often seen in children in distress.<sup>1</sup>

### Optional Monitoring Devices Have Paediatric Sensors

Neonatal and paediatric cuffs for non-invasive blood pressure measurement and infant and paediatric SpO<sub>2</sub> sensors provide important monitoring information for evaluating potential patient deterioration. They can be equally useful during transport or resuscitation. Optional mainstream EtCO<sub>2</sub> monitoring using the Respironics CAPNOSTAT 5 sensor with paediatric airway adapters helps confirm and monitor proper endotracheal tube placement and provides alerts for any potential dislodgement. It also provides valuable information on the progress of resuscitation.

## Focus on Simplicity Minimises Errors and Confusion

The R Series monitor/defibrillator keeps things simple for clinicians. The paediatric paddles are stored inside the adult paddles. And it uses the same OneStep<sup>™</sup> cable to connect both adult and paediatric electrodes and internal spoons.

#### Safe Operation Is a Priority

When the paediatric electrodes are attached to ZOLL's R Series, the shock energy setting is automatically lowered to a starting dose of 50 joules.

For units like the NICU, where

even 50 joules may be too high, R Series can be configured to automatically decrement to whatever dose is desired, **even as low as 1 joule.** By automatically decreasing the starting dose, the R Series monitor/defibrillator minimises the chance of incorrect dosing. This is different from other devices that attenuate the energy by adding resistance to the circuit, which impacts impedance measurement and reports inaccurate dosage.

<sup>1</sup>Zoll PM, et al. Circulation. 1995;71(5):937-44.

#### Automatic Testing Assures Defibrillator Readiness

Paediatric resuscitation is infrequent, but devices must always be ready. R Series automatically performs a daily, 100-point self-test with the electrodes attached, alerting you when electrodes are expired. If the unit is compromised, the cause is displayed on the screen. If desired, the results of the self-test can be wirelessly transmitted to clinical engineering for troubleshooting.

> Don't Compromise When It Comes to Paediatrics ... Rely on ZOLL

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MCN IP 2102 0351-13

