THE PROBLEM
Every day, sudden cardiac arrest, the number one killer in the US, takes the lives of 1500 Americans. Current survival rates are generally poor, with fewer than 10% of patients surviving out-of-hospital cardiac arrest. There is now new hope for the people who experience cardiac arrest.

THE SOLUTION
The newly-approved ResQCPR™ System delivers Intrathoracic Pressure Regulation (IPR) Therapy during cardiac arrest resuscitation. IPR Therapy regulates pressure in the chest to enhance perfusion in states of low blood flow, such as cardiac arrest and shock. In a pivotal clinical trial, use of the ResQCPR System increased one-year survival by 49% compared to patients receiving conventional CPR. The ResQCPR System is the only CPR device with an approved indication to increase the likelihood of survival. If implemented widely, this could mean that thousands more people would survive cardiac arrest every year.

PRODUCT DESCRIPTION
The ResQCPR™ System is a device combination that includes both the ResQPUMP ACD-CPR Device and the ResQPOD ITD 16.

The ResQPUMP® ACD-CPR Device is a re-usable, hand-held device comprised of a suction cup that is placed on the chest, and a handle that contains a force gauge and metronome. It is the only device approved in the US that allows the caregiver to perform active compression decompression CPR (ACD-CPR), which compresses the chest like manual CPR, but allows the user to actively re-expand the chest to generate the negative pressure (or vacuum) that helps to refill the heart (i.e. create preload).

The ResQPOD® ITD 16 is an impedance threshold device (ITD) that helps to further enhance negative intrathoracic pressure by preventing the influx of unnecessary air through the open airway during active chest wall recoil. It is disposable and fits into the airway circuit between the airway adjunct (e.g. facemask, endotracheal tube) and the ventilation source (e.g. ventilation bag).

RESQCPR SYSTEM IMPACT
When used together, the ResQPUMP and ResQPOD work synergistically to enhance the vacuum in the chest during CPR more effectively than either device individually.
RESEARCH SUMMARY
The ResQCPR System has been extensively researched. Pre-clinical studies have been conducted and have shown that use of an ITD during ACD-CPR:

- Increased aortic pressures and lowered intracranial pressure (ICP), resulting in improved cerebral perfusion pressure.
- Increased blood flow to the brain during resuscitation to near-normal levels.
- Improved neurologically-intact survival.

Clinical studies have shown that use of an ITD during ACD-CPR:

- Increased survival at one year by 33% in patients who arrested from non-traumatic etiologies.
- Increased survival at one year by 49% in patients who arrested from cardiac etiologies.
- Provided near-normal systolic and diastolic blood pressures.
- Significantly enhanced the intrathoracic vacuum with both a facemask and ET tube.

FEATURES AND BENEFITS
- Only device with an approved indication to increase the likelihood of survival.
- Only device that enables rescuers to provide ACD-CPR.
- Cost-effective.
- Lightweight, portable and compact.
- Latex free.
- Can be applied rapidly by basic or advanced life support caregivers.
- Designed to promote high quality resuscitation:
  - ResQPOD contains timing lights, intended to promote proper ventilation rate.
  - ResQPUMP contains metronome, intended to promote proper compression rate.
  - ResQPUMP contains force gauge, intended to guide compression and lifting forces.

PERFORMING RESQCPR: ABBREVIATED INSTRUCTIONS

1. Assess for signs of life.
2. Send for AED.
3. Begin ACD-CPR compressions ASAP:
   A. Place ResQPUMP between nipples and above xiphoid process.
   B. Perform ACD-CPR:
      - Compress: to 2” (5 cm) depth and note force required to achieve that depth
      - Decompress: Lift to -10 kgs
      - Rate: 80 per minute
4. Apply ResQPOD ITD ASAP:
   A. Attach early to facemask. Maintain tight facemask seal using 2-handed technique.
   B. Begin ventilations at appropriate compression to ventilation ratio.
   C. Move to advanced airway once tube placement is confirmed and secured.
   D. Use lights to guide ventilations. Do not hyperventilate.
5. Remove BOTH devices when pulse returns.
Improper use of the ResQCPR System could cause ineffective chest compressions and decompressions, leading to suboptimal circulation during CPR and possible serious injury to the patient. The ResQCPR System should only be used by personnel who have been trained in its use. The ResQPUMP should not be used in patients who have had a recent sternotomy as this may potentially cause serious injury. Improper positioning of the ResQPUMP suction cup may result in possible injury to the rib cage and/or internal organs, and may also result in suboptimal circulation during ACD-CPR.

References
1. Patients in cardiac arrest from cardiac etiologies
2. ResQCPR System Summary of Safety and Effectiveness Data approved by Food & Drug Administration 2015
3. FDA-approved indication for use: The ResQCPR System is intended for use as a CPR adjunct to improve the likelihood of survival in adult patients with non-traumatic cardiac arrest.
4. Pre-clinical study results are not necessarily representative of clinical study results.
9. See product insert for complete instructions for use.

AVAILABILITY AND CUSTOMER SERVICE

The ResQCPR System is available solely through ZOLL Medical Corporation. Customer Service is available to answer questions regarding product features and benefits, individual purchases, pricing, refunds, rebates, shipping status, or other service related information.

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