The SAVER

A novel CPR Adjunct to Increase Cerebral and Cardiac Perfusion

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HEARTBEAT TECHNOLOGIES

Introduction

- Cardiopulmonary resuscitation (CPR) has been largely unchanged since its inception in 1960
- Yet, only **10% survive cardiac arrest in the US**
- Only **1% survive in the world**

- Over 650,000 witnessed cardiac arrests per year in the US.
  - Of the patients that survive, only 9% are without neurological impairment.
- Current practice CPR results in less than optimal blood flow to vital organs

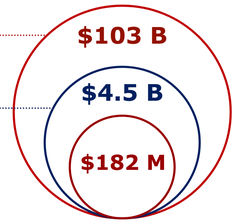
We propose an opportunity to improve CPR outcomes for patients in the hospital, in ambulances, and in the community

Market Opportunity

Total Available Market
Healthcare Facilities, EMS, Drug Store Chains, Government Offices, Businesses, Airports

Serviceable Available Market
Hospitals, EMS, Urgent Care Centers, Nursing Homes and Rehabilitation Centers

Serviceable Obtainable Market
Academic Medical Centers and County EMS



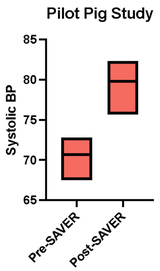
Pilot Data

Our pilot pig study demonstrated a mean **12.6% increase in blood pressure** with bilateral occlusion of the femoral arteries.

- The heart and brain will experience see increased blood flow for longer

97% of Charleston EMS reported they are **comfortable** deploying a device like the SAVER in the field

- This translates to a low training burden



Value Proposition

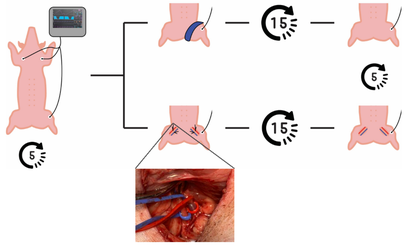
The SAVER improves CPR performance and confidence.

Increases blood pressure

Real-time feedback

Does not compete with current care

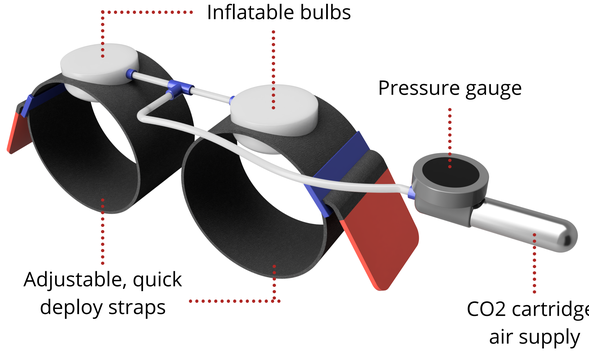
Experimental Design

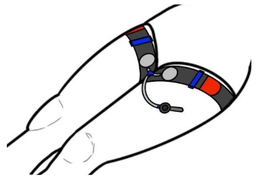


The SAVER Design

The SAVER was designed to be intuitive to use by all persons and to seamlessly **integrate into the current practice** of CPR without interrupting chest compressions.

SAVER





The SAVER fits over the patient's thighs near the groin to **provide occlusion of the femoral vessels and can be deployed in under 1 minute.**

FDA Class I, 510K Exempt Device filing in Summer 2022.

US Patent # 206085-0104-P1US

Traction

Nov. 2020
SC Innovates 1st Place Winner ($4.2k)

Feb. 2021
Provisional Patent Filed

Mar. 2021
High-Innovation High-Reward Grant ($10k)

Aug. 2021
VentureWell Phase I ($5k)

MUSC Student Innovation Week Winner ($2.5k)

XLerate Health Accelerator Program

Jan. 2022
VentureWell Phase II ($20k)

Feb. 2022
Southeastern Surgical Congress Shark Tank 1st Place ($5k)

NIH STTR Grant Submitted

VentureWell Innovator Award ($4k)

Mar. 2022
SAGES Shark Tank Finalist

Utility Patent Filed

Clinical Trial at MUSC

The Heartbeat Team



Kristen Quinn, MD
Chief Executive Officer



Heather Holman
Chief Scientific Officer



Joshua Kim, MS
Chief Design Officer

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Partners

MUSC Medical University of South Carolina

SCRA South Carolina Research Authority

VENTUREWELL idea to impact

XLerateHealth