



EMSSafety
FOUNDATION
Innovation, Collaboration & Knowledge Transfer

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IRESCU - SAVING LIVES AND DATA

A new multi-platform App to integrate social media and bridge logistic challenges in the chain of survival

FINANCIAL DISCLOSURES

This is a pro bono, unfunded study, under the umbrella of the EMS Safety Foundation

INTRODUCTION

Of 300,000 USA out-of-hospital cardiac arrests <10% survive, and an AED used in <2%, yet in ~4/5 there is a shockable rhythm.

Studies demonstrate bystanders are often uncomfortable to perform CPR, locate or use an AED, and often ineffective in cardiac emergencies

OBJECTIVE

To develop a freely available CPR/AED smartphone app designed for lay use with free community dissemination on a two way cloud based global platform

METHODOLOGY

A multidisciplinary team was assembled bridging CPR educators, software developers, human factors expertise, and academics, epidemiologists, social media expertise, and sudden cardiac arrest survivors and activists.

A virtual interactive platform utilized

A preliminary App review performed

METHODOLOGY

A multidisciplinary team designed app

Optimizing features available in smartphones on all platforms

Utilizing cutting edge cloud based and crowd source technologies

To be an easy access tool for the lay person for training, and when faced with life threatening cardiac emergency, as well as providing enhanced AED location access providing two way valuable datasets to Emergency

Services and public health researchers

RESULTS

The iRescu CPR/AED App is <1mb, designed for deployment to multiple mobile platforms, functioning as both a data terminal and a data resource

Has modes addressing:

- CPR/AED/EMS support in an emergency setting,

- CPR/AED training mode

- AED geolocation and use



The design is simple high contrast screens, identifying global emergency call numbers, clear text information (international language capability)

Adherence to AHA and/or ERC guidelines with no medical jargon, Use of visual, auditory, and haptic feedback to

enhance CPR performance

RESULTS

Uses standard GPRS/GPS technology to access a live expanding AED database to provide relevant real time AED location information

Scope to interact with emergency services and resources via e911 or global equivalents

iRescu can operate without connectivity, and is capable of saving data, and uploading when connectivity is restored.

RESULTS

Initial evaluation completed, operational field evaluation is underway with five USA pilot sites for initial AED geolocation capture

A creative dissemination plan involves both health care and non-health care strategies and is

including this conference! (see iRescu AED Location Challenge at this AHA Conference)

LIMITATIONS

Captured AEDs still need to be validated for location and accessibility

Complex business model to ensure free access to the public

Smartphone technology though being adopted rapidly remains skewed towards the adolescent

and young adult population

Challenges in public health establishment adopting crowd sourcing technologies

DISCUSSION

Furthermore, though public health solutions are customarily regional or local, the 'cloud' is

global - thus point solutions are problematic when it comes to implementing App based AED

projects - as can be seen from a number of the Apps described in our poster yesterday

The explosive development of smart phone Apps opens up a unique and very valuable opportunity to bridge the 30 year stagnant out of hospital cardiac arrest outcomes

Though social media fluency is largely a skill focused in the under 25 year old generation - this

is a population that is an excellent target for CPR/AED proficiency

CONCLUSIONS

It is well described that the effectiveness of the lay public's key role in initiating effective CPR,

locating and using an AED is a major challenge to achieving improved cardiac arrest outcomes

