



# PURCHASE OF MECHANICAL CPR DEVICES

RS-22-074

June 7, 2022



## Mechanical Compression Devices

Zoll AutoPulse is a portable mechanical CPR device that provides automated chest compressions.

# Overview

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- ❑ Killeen Fire Department responds to over 200 Sudden Cardiac Arrest incidents each year. (224 in last 12 months)
- ❑ Currently own 3 Zoll AutoPulse mechanical compression devices (EMS 1, EMS 2, Medic 8)
- ❑ Devices may not arrive on scene for 8-12 minutes
- ❑ Compression fraction is the percentage of time a patient receives compressions while being cared for by First Responders.  
Compression fraction is directly related to chance of survivability
- ❑ Many variables such as stairs, hallways, patient location in building, loading/unloading in ambulance affect compression fraction
  - ▣ WITHOUT mechanical compression devices usually about 50%-60%
  - ▣ WITH mechanical compression devices usually greater than 85%

# Benefits to Citizens

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- ❑ Provides high-quality, automated full chest circumference compressions without ever “getting fatigued”
- ❑ Reduces interruptions in CPR by 85%
- ❑ Improves blood flow to heart and brain
- ❑ Increases patient outcomes in clinical trials
  - ▣ Current survival rate for out-of-hospital cardiac arrest is 9% (discharged from hospital alive) with only 7% having good functional status. (2020 National Cardiac Arrest Data Report)
  - ▣ Numerous agencies across the country utilizing this tool and bundle of care have survivability rates at or above 20%

# Benefits to Healthcare Providers

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- ❑ Reduces exposures to infectious diseases like COVID-19 by creating space between the provider and the patient
- ❑ Reduces healthcare provider fatigue
- ❑ Improves provider safety during transport
- ❑ Increases the efficiency of caregiving teams by freeing up hands for other critical tasks

# Features

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- Portable, battery operated, and easy to use
- Improved efficiency by squeezing the patient's chest circumference versus single direction piston driven devices
- Built-in stabilizing board and soft stretcher that allows CPR to continue while moving patients through tight corridors

# Funding

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- Zoll AutoPulse is a sole source expenditure
  - ▣ Only manufactured and marketed by Zoll Medical Corp.
  - ▣ No other devices like it on the market due to its mechanism of action (full circumference chest compression) and features
- One time purchase of \$143,193.69
  - ▣ CDBG COVID Funds (CARES Act)

# Alternatives

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- Purchase the mechanical compression devices
- Do not purchase the mechanical compression devices



# Recommendation

- Staff recommends that the City Council authorize the City Manager to execute the purchase of 9 mechanical compression devices from Zoll Medical Corporation