

THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS
BOARD ACTION SUMMARY

DEPT: Health Services Agency

BOARD AGENDA: 8.1
AGENDA DATE: July 31, 2018

SUBJECT:

Authorization for the Mountain Valley Emergency Medical Services Agency to Expend System Enhancement Funds on Behalf of Stanislaus County to Purchase Automatic Chest Compression Devices (LUCAS) to Improve Outcomes for Sudden Cardiac Arrest Victims

BOARD ACTION AS FOLLOWS:


RESOLUTION NO. 2018-0406

On motion of Supervisor Withrow, Seconded by Supervisor Olsen
and approved by the following vote,
Ayes: Supervisors: Olsen, Chiesa, Withrow, Monteith, and Chairman DeMartini
Noes: Supervisors: None
Excused or Absent: Supervisors: None
Abstaining: Supervisor: None

- 1) Approved as recommended
- 2) Denied
- 3) Approved as amended
- 4) Other:

MOTION:

ATTEST:



ELIZABETH A. KING, Clerk of the Board of Supervisors

File No.

**THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS
AGENDA ITEM**

DEPT: Health Services Agency

BOARD AGENDA:8.1
AGENDA DATE: July 31, 2018

CONSENT

CEO CONCURRENCE: YES

4/5 Vote Required: No

SUBJECT:

Authorization for the Mountain Valley Emergency Medical Services Agency to Expend System Enhancement Funds on Behalf of Stanislaus County to Purchase Automatic Chest Compression Devices (LUCAS) to Improve Outcomes for Sudden Cardiac Arrest Victims

STAFF RECOMMENDATION:

1. Authorize the Mountain Valley Emergency Medical Services Agency to Expend System Enhancement Funds on Behalf of Stanislaus County to Purchase LUCAS Chest Compression Devices.

DISCUSSION:

Under the Health and Safety Code, Division 2.5, Chapter 4, Article 1, Section 1797.200, "Each county may develop an emergency medical services program. Each county developing such a program shall designate a local EMS agency which shall be the county health department, an agency established and operated by the county, an entity with which the county contracts for the purposes of local emergency medical services administration, or a joint powers agency created for the administration of emergency medical services by agreement between counties or cities and counties pursuant to the provisions of Chapter 5 (commencing with Section 6500) of Division 7 of Title 1 of the Government Code." Stanislaus County participates in a Joint Powers Agency (JPA), the Mountain Valley Emergency Medical Services Agency (MVEMSA) and has addressed various related policy matters as contained in the Stanislaus County Ordinance 6.70.

The Emergency Medical Services Committee (EMSC) was established by the Stanislaus County Board of Supervisors on August 28, 2001, pursuant to their authority under applicable California law. The role of the EMSC is to evaluate and make recommendations as they relate to the planning and provision of emergency medical services (EMS) within the county, including ambulance agreements. The committee also serves in an advisory capacity to the MVEMSA and the Stanislaus County Board of Supervisors on EMS issues.

On April 16, 2013, the Board of Supervisors approved ambulance provider agreements which authorized the assessment of automatic penalties on ambulance providers for non-compliance with response time standards for Code 2 and Code 3, 911 calls. These automatic penalty funds, paid by ambulance providers, resulted in a significant increase

to the System Enhancement Fund account, which are funds set aside for the improvement and enhancement of the emergency medical system in Stanislaus County and held by MVEMSA.

Recognizing the increase in available funds for emergency medical service improvements, the Board of Supervisors on December 15, 2015 approved a System Enhancement Fund policy (attached), giving direction and use priorities to be administered by MVEMSA.

The request to purchase LUCAS Chest Compression Devices in this item has been approved by the EMSC for consideration by the Board of Supervisors at the March 8, 2018 and April 5, 2018 meeting, which includes support from partner Fire Agencies. The details of the request are contained in the EMS Committee Action Agenda Summary attached.

Other recent approvals for the use of System Enhancement Funds include the purchase of an additional component of the FirstWatch surveillance system used by MVEMSA, and funds for expert consulting and professional services to support the Request for Qualifications and Proposals process for new ambulance provider agreements.

LUCAS Chest Compression Devices

The current request for use of System Enhancement funds is for the purchase of LUCAS chest compression devices for use by all public fire agencies and hospital district ambulance providers. The LUCAS Chest Compression Device is designed to help improve outcomes for sudden cardiac arrest victims and improve operations for medical responders.

Good chest compressions remain an integral part of the resuscitation of a pulseless patient, but challenges frequently interrupt or compromise their quality. This is especially true in the pre-hospital setting, where personnel may be limited and other critical procedures such as airway management, intravenous access, medication administration, and transport compete with good compressions. In addition, rescuer fatigue can often set in well before transport to a hospital.

An Automatic Chest Compression Device could reduce interruptions, ensure appropriate depth and frequency, and free up personnel and space to perform other tasks. The goal of good cardio pulmonary resuscitation (CPR) is to provide mechanical circulation of blood throughout the cardiovascular system and prolong the electrical phase until a defibrillator is available.

When a patient's heart has stopped and he/she isn't breathing (aka cardiac arrest), the fire and ambulance crews perform "Pit Crew CPR" by providing chest compressions and artificial respirations in an orchestrated manner. Pit Crew CPR is labor intensive and can last up to forty (40) minutes or longer, per Mountain-Valley EMS Agency Cardiac Arrest Policy. Several of the incorporated fire agencies (Modesto Fire Department, Ceres Fire Department, Turlock Fire Department, and Stanislaus Consolidated Fire Protection District) will dispatch an additional Engine and Battalion Chief to the scene of

a cardiac arrest to provide physical support by adding additional resources to perform CPR.

Sending an additional Fire Engine Company and Battalion Chief is not cost efficient nor is it a beneficial use of emergency resources; however, according to the fire chiefs, it is a necessary internal policy for these fire agencies to protect staff from injury and exhaustion while performing chest compressions. A potential danger to life and property exists if multiple Fire Engines and a Battalion Chief are committed to a scene that involves a cardiac arrest and another emergency incident (cardiac arrest, medical emergency, vehicle accident or fire) takes place nearby, thus preventing the closest resources from responding.

Modesto Fire Department and Stanislaus Consolidated Fire Protection District implemented a successful pilot study utilizing mechanical chest compression devices, like LUCAS, to reduce potential injuries to first responders and to reduce the need of sending additional fire personnel to the hospital by ambulance for assisting the Paramedic.

Due to the physical toll and multiple personnel required to sustain Pit Crew CPR, other options to provide the highest level of service to cardiac arrest patients were considered. Fire agencies looked at several devices including the Autopulse from Zoll. The LUCAS device was chosen by fire personnel because it was the device approved and recommended by Dr. Kevin Mackey, the recent Mountain-Valley EMS Agency Medical Director. The guidelines for CPR have been modified to include critical circulation of the heart and brain during cardiac arrest. However, most rescuers have difficulty meeting and maintaining those CPR guidelines. As a result, rescuers are looking for solutions to improve and sustain the quality of their CPR and, in doing so, improve outcomes for cardiac arrest.

Dr. Karl Sporer, the Alameda County EMS Agency Medical Director, along with others published a study in Prehospital Emergency Care on September 14, 2016 titled "Continuous Quality Improvement Efforts Increase Survival with Favorable Neurologic Outcome after Out-of-Hospital Cardiac Arrest." The report defines multiple strategies for Out of Hospital Cardiac Arrest, which was implemented in the community – specifically, hypothermia treatment and mechanical compression device. A LUCAS automated CPR device was available in 90% of fire engines and an AutoPulse Mechanical device was available on the others. The subgroup that received mechanical CPR and hospital hypothermia had the greatest improvement with a survival rate of 24%.

In a 2006 edition of Resuscitation Magazine (*Resuscitation*. 2006; 71:47-55), a pilot study using the LUCAS device proved to be impact-resistant and dependable. Resuscitation efforts were facilitated by freeing the hands of the rescuer from chest compression. For the same reasons, safety increased during transport in a moving ambulance. In addition, the LUCAS device created an option to transport patients with effective CPR and freed up resources to focus on other lifesaving tasks. A 2005 study by Steen, Sjober, and Olsson (*Resuscitation*. 2005; 67:25-30) focused on the treatment of out-of-hospital cardiac arrest with LUCAS, a new device for automatic mechanical

compressions and active decompression resuscitation. The study's authors recommended that mechanical compressions be mandatory during transport for the safety of the crew.

The benefits of the LUCAS Chest Compression Device include:

- Allows rescuers to provide other life-saving therapies without the limitations or difficulties of manual CPR
- Frees up first responders immediately for response if another EMS call develops
- Standardizes the quality of chest compressions, adhering to the European Resuscitation Council and American Heart Association Guidelines for CPR depth, rate, and recoil
- Allows for effective CPR during patient transportation or in small places (small trailers) while improving rescuer safety
- Can provide life-sustaining circulation in the catheterization laboratory during procedures to reopen blocked arteries
- Studies show that patient outcomes with the device are comparable to those with manual compression

A total of fifty (50) LUCAS Chest Compression Devices will be purchased for distribution to all Stanislaus County fire agencies and hospital district ambulance providers. The devices have a one-year manufacturer warranty and included in the cost is a four-year agreement for comprehensive coverage and maintenance of the devices initiating after the warranty period. As part of any future ambulance provider agreements, the requirement to have LUCAS Chest Compression Devices will be considered. The total cost for the devices is \$1,016,899.

POLICY ISSUE:

The EMSC serves in an advisory capacity to the MVEMS Agency and the Stanislaus County Board of Supervisors on EMS issues. Pursuant to Board Policy, the MVEMSA shall confer with the Stanislaus County Public Health Officer, then submit a request for approval to the EMSC for use of System Enhancement Funds. The EMSC shall submit their recommendations to the Board of Supervisors for final approval of the expenditure of System Enhancement Funds.

FISCAL IMPACT:

The Stanislaus County System Enhancement Fund has a total fund balance of \$4,301,786 as of July 9, 2018. This balance includes a total of \$1.5 million set aside by the Board of Supervisors for future dispatch integration needs, and approximately \$1,061,545 of prior approved uses. The undesignated portion of the funds is \$1,756,390. The total cost for System Enhancement Fund equipment recommended for approval for the LUCAS chest compression devices, \$1,016,899.

BOARD OF SUPERVISORS' PRIORITY:

The recommended actions are consistent with the Boards' priorities of *Supporting Community Health* and *Delivering Efficient Public Services and Community Infrastructure*, by providing new equipment to improve the EMS delivery system in Stanislaus County for improved health outcomes.

STAFFING IMPACT:

There is no staffing impact associated with this report. The staff of MVEMSA will coordinate the purchase and disbursement or implementation as applicable.

CONTACT PERSON:

Mary Ann Lee, Health Services Agency Director. Telephone: 209-558-7163
Lance Doyle, MVEMSA Executive Director. Telephone: 209-529-5085

ATTACHMENT(S):

1. 951.20 Policy System Enhancement Funds
2. MVEMS Purchase of LUCAS Devices

APPROVED: SIGNATURE ON FILE IN EMS OFFICE
Executive Director

EFFECTIVE DATE: 12/15/2015
REVIEW DATE: 12/2018

SIGNATURE ON FILE IN EMS OFFICE
Medical Director

Page 1 of 4

STANISLAUS COUNTY EMS SYSTEM ENHANCEMENT FUNDS

I. AUTHORITY

Stanislaus County Board of Supervisors Approval on December 15, 2015

II. DEFINITIONS

- A. "Agency" - Mountain-Valley EMS Agency
- B. "Emergency Medical Services (EMS) System Enhancement Funds" – The funds generated from Stanislaus County Ambulance Provider(s) contractual non-compliance fines.
- C. "Stanislaus County Emergency Medical Services Committee (EMSC)" – Advisory Committee to the Mountain-Valley EMS Agency and the Stanislaus County Board of Supervisors on EMS issues.
- D. "Eligible Agency" – A public stakeholder within the Stanislaus County EMS System.

III. PURPOSE

Establish a process for the use of Stanislaus County EMS System Enhancement Funds

IV. POLICY

The EMS System Enhancement Fund was established as a result of the fines assessed and collected from the Stanislaus County ambulance providers for contractual non-compliance.

Response Time compliance is monitored through contractual agreements between Agency and Stanislaus County Ambulance Providers. The objective is to encourage response time compliance and thereby improve patient care for the community. Fines generated from non-compliance issues are used to enhance the EMS System within Stanislaus County

Funds shall be allocated to projects that support the following priorities:

- A. Capital expenditures geared toward the integration of EMS dispatch in the Stanislaus Regional 9-1-1 Dispatch Center and potentially other public dispatch entities;
- B. Training costs associated with the integration of EMS dispatch in the Stanislaus Regional 9-1-1 Dispatch Center and potentially other public dispatch entities;

- C. EMS training, equipment and/or supply purchases that benefit or enhance EMS services in Stanislaus County on a system-wide basis. A percentage limit is listed within the parenthesis next to each category of the total system enhancement fund for the purchase of EMS equipment or training equipment, First Responder EMS equipment, and EMS pre-hospital supplies.
- a. The following items are acceptable items to request
 - i. EMS equipment or training equipment (Single request not to exceed 2.5% of total system enhancement fund amount – Example 2.5% of 2,000,000 = 50,000.00)
 - 1. Automated External Defibrillator's (AEDs)
 - 2. Manikins used for CPR or EMS training
 - 3. Stair Chairs
 - 4. Training equipment that adds to or enhances the skill(s) of a First Responder or EMS Personnel
 - ii. EMS Supplies (Single request not to exceed 2.5% of total system enhancement fund amount)
 - 1. AED replacement supplies
 - 2. Personal Protective Equipment (PPE)
 - 3. Triage Tags
- D. Items requested by Mountain-Valley EMS Agency that benefit or enhances the EMS services in Stanislaus County on a system-wide basis, which will be approved by Stanislaus County EMSC.

The fund shall maintain a minimum reserve of \$100,000.

The Agency shall provide an accounting of the fund balance to the EMSC at their regular meetings and upon request.

V. PROCEDURES

- A. An Eligible Agency may complete and submit an Application to Request Allocation of System Enhancement Funds (Attachment A) to the Mountain-Valley EMS Agency. The application must include the following:
- 1. Detailed description of the project
 - 2. Amount requested with a detailed budget
 - 3. Other funding sources available
 - 4. Justification for how the EMS System will be enhanced
 - 5. Supporting documentation (i.e. quotes, project analysis and planning documents)
- B. The Agency shall review and assess the applications alignment with the fund priorities and confer with the Stanislaus County Public Health Officer (PHO). If an application is determined eligible, the Agency will make recommendation for approval to the EMSC.
- C. The EMSC shall take action on the recommendations and submit qualifying requests to the Stanislaus County Board of Supervisors for approval.

- D. Upon approval from the Stanislaus County Board of Supervisors, the following shall take place:
1. Agency shall notify the applicant.
 2. The applicant shall invoice the Agency for the approved funds.
 - a. The invoice shall include:
 - i. Agency Name, Address, Contact Person
 - ii. Invoice Number
 - iii. Quantity of Items to be Purchased
 - iv. Unit Price of Item
 - v. Description of Items Purchasing
 - vi. Subtotal
 - vii. Total
 3. Agency shall disburse the funds by check within 30 calendar days of receipt of invoice.
 4. Recipient shall provide the following to Agency:
 - a. Confirm proof of purchase by submitting receipt of purchase to Agency

Attachment A

Application to Request Allocation of System Enhancement Funds

Name of Organization: _____

Address: _____

Contact Person: _____ **Phone:** _____

Refer to Agency Policy # 951.20 V. Procedures, A. 1-5

1. Detailed description of the project (Attach additional supporting documentation if desired)

2. Amount requested with a detailed budget (Specific Project Costs and Capital Item(s) to be purchased – attach additional pages as needed)

3. Provide justification on how the EMS System will be enhanced in Stanislaus County

4. Describe other funding sources available to fund this project (Matching Funds, Applying for state funding on a regional basis, Greater benefits would be realized by more counties/more agencies participating)

5. Supporting Documentation (Quotes, project analysis and planning documents)

STANISLAUS COUNTY EMERGENCY MEDICAL SERVICES COMMITTEE
ACTION AGENDA SUMMARY

DEPT: Mountain-Valley EMS Agency AGENDA ITEM# 6b

Urgent Routine Vote Required AGENDA DATE 4/5/18

ATTACHMENTS: Application for System Enhancement Funds from Mountain-Valley EMS Agency

CONTACT PERSON: Cindy Murdaugh, Interim Executive Director

SUBJECT: Purchase of LUCAS Devices for all Public Fire Agencies and Hospital District Ambulance Providers

DISCUSSION:

In accordance with Policy 951.20, Stanislaus County System Enhancement Funds, Mountain-Valley EMS Agency has reviewed the attached application and determined it is an eligible request that is in alignment with fund priorities.

In summary, the request is to purchase fifty LUCAS Chest Compression devices for use by all public fire agencies and hospital district ambulance providers.

The application was forwarded to the Stanislaus County Health Officer, who concurs this is an appropriate use of the System Enhancement Fund.

The Committee is asked to consider this application in view of the staff recommendation annotated below.

STAFF RECOMMENDATIONS: Approval to recommend to the Stanislaus County Board of Supervisors

FISCAL IMPACT: \$1,016,898.71 Requested; Available Funds = \$1,590,261.28

COMMITTEE ACTION AS FOLLOWS: Approved as written by a Vote of 8-0

Application to Request Allocation of System Enhancement Funds

Name of Organization: Mountain-Valley EMS Agency
Address: 1101 Standiford Ave, Suite D-1, Modesto CA 95350
Contact Person: Cindy Murdaugh, Interim Executive Director
Phone: 209-529-5085

1. Detailed description of the project (Attach additional supporting documentation if desired)

Mountain-Valley EMS Agency is asking for system enhancement funds to purchase 50 LUCAS Devices to be utilized by all fire first response agencies and public ambulance provider agencies within Stanislaus County.

The LUCAS Chest Compression System is designed to help improve outcomes for sudden cardiac arrest victims and improve operations for medical responders. The LUCAS device performs 102 compressions per minute with a depth of 2.1 inches and can be deployed quickly with minimal interruption to patient care. The LUCAS device has been utilized within Stanislaus County as a pilot study, which began on November 1st, 2017, by Modesto Fire Department and Stanislaus Consolidated Fire Protection District.

Modesto FD has utilized the device on a total of 26 cardiac arrest calls and is stored on E-1 and E-5.

Stanislaus Consolidated FPD has utilized the device on over 20 cardiac arrest calls and is stored on E-27 and E-23.

The advantages LUCAS devices bring to the fire service are cost effectiveness and staffing efficiency. The LUCAS device eliminates the need to have a firefighter ride in with the ambulance to perform manual CPR. In addition, the LUCAS device minimizes the chance of a workers comp issue or exhaustion to the individual performing manual CPR.

Physio-Control Inc., the world's leading provider of professional emergency response solutions, announced that the main results of the large randomized LINC study which compared the effectiveness of the LUCAS mechanical chest compression system to high quality manual chest compressions were presented at the European Society of Cardiology congress in Amsterdam, the Netherlands. The LINC study showed similar short-term survival rates for LUCAS (23.6%) and manual (23.7%) chest compressions. At 6-months, 8.5% of the patients treated with LUCAS were alive with good neurological outcomes compared to 7.6% in the manual group.

The study provides the highest level of evidence that sudden cardiac arrest patients can be effectively treated using LUCAS mechanical chest compressions. The LUCAS chest compression system provides several additional benefits to resuscitation care:

- Frees rescuers to provide other life-saving therapies without the limitations or difficulties of manual cardiopulmonary resuscitation (CPR);**

- **Standardizes the quality of chest compressions adhering to the European Resuscitation Council and American Heart Association Guidelines for CPR depth, rate and recoil**
- **Allows for effective CPR during patient transportation, while improving rescuer safety**
- **Can provide life-sustaining circulation in the catheterization laboratory during procedures to reopen blocked arteries**

2. Amount requested with a detailed budget (Specific Project Costs and Capital Item(s) to be purchased – attach additional pages as needed)

\$1,016,898.71

Number of LUCAS Devices by Agency:

• Modesto Fire Department	10
• Stanislaus Consolidated FPD	12
• Ceres FD	3
• Turlock FD	3
• West Stanislaus FPD	3
• Patterson City FD	2
• Burbank-Paradise FD	1
• Ceres Emergency Services	1
• Denair FD	1
• Hughson FPD	1
• Keyes FPD	1
• Mountain View FD	1
• Newman FD	1
• Salida FPD	1
• Turlock Rural FPD	1
• Woodland Avenue FD	1
• Westport FPD	1
• Patterson District Ambulance	2
• West-Side Ambulance	2
• <u>Oak Valley Ambulance</u>	<u>2</u>

50 Lucas Devices with ancillary equipment (power supply, charger, extra batteries, and 5 year maintenance)

3. Provide justification on how the EMS System will be enhanced in Stanislaus County

The LUCAS Chest Compression System has shown in both Modesto FD and Stanislaus Consolidated FPD studies to be extremely effective on EMS CPR calls utilizing Pit Crew CPR by providing effective chest compressions. Pit Crew CPR can last up to 40 minutes (and longer), which takes a physical extraneous toll on those performing chest

compressions. In addition, many fire agencies dispatch additional units to the scene of a cardiac arrest in order to provide physical support by providing additional manpower on the patient's chest to perform CPR.

By providing a LUCAS device(s) to each fire agency (incorporated and unincorporated) the opportunity exists to provide:

- **Quicker return to service for those agencies not needing to send in an additional firefighter to perform compressions**
- **Reduction in workers compensation due to extended CPR compression time by EMS and Fire personnel**
- **Reduces the need for additional resources to the scene to assist with CPR compressions**
- **Reduces the need for a volunteer agency first responder to ride in with the ambulance crew providing CPR compressions**

Having the Chest Compression Devices (LUCAS Device) will allow paramedics more time to attend to vital functions like airway management, and drug and electrical therapy. Compressions will be consistent and at a constant rate even when the patient is being moved resulting in an increase in positive patient outcomes. Patients will experience less rib fractures and cartilage damage due to manual compressions. Rescuers will not experience the fatigue associated with manual compressions and incidences of back and other injuries should go down. The rescuers safety will be greatly enhanced as they will be able to be seated and buckled in during transport.

4. Describe other funding sources available to fund this project (Matching Funds, Applying for State Funding on a Regional Basis, Greater benefits would be realized by more counties/more agencies participating)

No available funding sources immediately available due to limited financial resources

5. Supporting Documentation (Quotes, project analysis and planning documents)

See attached quote

Tax will be calculated at time of invoice and is based on the Ship To location where product will be shipped.

Grand Total USD 1,016,898.71

	Pricing Summary Totals
List Price Total	USD 1,145,920.00
Total Contract Discounts Amount	USD -184,590.00
Total Discount	USD 0.00
Trade In Discounts	USD 0.00
Tax + S&H	USD 55,568.71

GRAND TOTAL FOR THIS QUOTE
USD 1,016,898.71

Please provide a company issued Purchase Order that includes Billing and Shipping Address.
PO must reference payment terms of Net 30 days.

- OR -

Required information if no Purchase Order is provided

Billing Address same as address on quote	Shipping Address same as Billing Address
Account Name _____	Account Name _____
Address _____	Address _____
City _____	City _____
State _____ Zip Code _____	State _____ Zip Code _____
Accounts Payable Contact Information	
Accounts Payable Contact _____	Accounts Payable Phone Number _____
Accounts Payable Email _____	Customer is Tax Exempt? Yes No
Authorized Customer Signature	
Name _____	Signature _____
Title _____	Date _____

Optional information:

Special Ship to Address _____

Comments _____

For Multiple End Users, please attach a supporting document with End User name, physical location, product type and quantity

To update any customer information, please complete form at www.physio-control.com/account/

Reference Number JH/162337

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Choice of Law. The rights and obligations of Physio and Buyer related to the purchase and sale of products and services described in this document shall be governed by the laws of the state where Buyer is located. All costs and expenses incurred by the prevailing party related to enforcement of its rights under this document, including reasonable attorney's fees, shall be reimbursed by the other party.

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Delivery. Unless otherwise specified by Physio in writing, delivery shall be FOB Physio point of shipment and title and risk of loss shall pass to Buyer at that point. Partial deliveries may be made and partial invoices shall be permitted and shall become due in accordance with the payment terms. In the absence of shipping instructions from Buyer, Physio will obtain transportation on Buyer's behalf and for Buyer's account. Delivery dates are approximate. Freight is pre-paid and added to Buyer's invoice. Products are subject to availability.

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Pricing. If the number or configuration of Covered Equipment changes during the Service Plan subscription, pricing shall be pro-rated accordingly. For Preventative Maintenance, Inspection Only, Comprehensive, and Repair & Inspect Service Plans, Buyer is responsible to pay for preventative maintenance and inspections that have been performed since the last anniversary of the subscription start date and such services shall not be pro-rated.

Device Inspection Before Acceptance. All devices that are not covered under Physio's Limited Warranty or a current Service Plan must be inspected and repaired (if necessary) to meet specifications at then-current list prices prior to being covered under a Service Plan.

Unavailability of Covered Equipment. If Covered Equipment is not made available at a scheduled service visit, Buyer is responsible to reschedule with the Physio Service Technician, or ship-in the Equipment to a Physio service depot. Physio reserves the right to charge Buyer a surcharge for a return visit. Surcharges will be based on then-current Physio list price of desired services, less 10% for labor and 15% for parts, plus applicable travel costs. The return visit surcharge will be in addition to the subscription price of the Service Plan. To avoid the surcharge, Buyer may ship devices to a Physio service depot. Buyer shall be responsible for round-trip freight for ship-in service.

Unscheduled or Uncovered Services. If Buyer requests services to be performed on Covered Equipment which are not covered by a Service Plan, or are outside of designated Services frequency or hours, Physio-Control will charge Buyer for such services at 10% off Physio-Control's standard rates (including overtime, if appropriate) and applicable travel charges. Repair parts required for such repairs will be made available at 15% off the then-current list price.

Loaners. If Covered Equipment must be removed from service to complete repairs, Physio will provide Buyer with a loaner device, if one is available. Buyer assumes complete responsibility for the loaner and shall return the loaner to Physio in the same condition as received, normal wear and tear exempted, upon the earlier of the return of the removed Covered Equipment or Physio's request.

Cancellation. Buyer may cancel a Service Plan upon sixty (60) days' written notice to Physio. In the event of such cancellation, Buyer shall be responsible for the portion of the designated price which corresponds to the portion of the Service Plan subscription prior to the effective date of termination and the list-price cost of any preventative maintenance, inspections, or repairs rendered after the last anniversary date of the subscription start date.

No Solicitation. During the Service Plan subscription and for one (1) year following its expiration Buyer agrees to not to actively and intentionally solicit anyone who is employed by Physio to provide services such as those described in the Service Plan.

Automatic Chest Compression Device



Timeline

- ▣ MVEMSA System Enhancement Fund Policy

- ▣ System Enhancement Fund as of 7/9/18:
 - Balance - \$4,301,786
 - Un-designated amount \$1,756,390



Timeline

- ▣ EMSC approval April 5, 2018 for \$1,016,899 to purchase the following:
 - 50 LUCAS 3.1 Chest Compression System
 - 4 year additional on-site comprehensive coverage
 - Accessories for LUCAS Devices



Lucas Compression Device

- ▣ MVEMSA Policy 554.11
 - Pit Crew CPR/High Performance CPR

- ▣ Automatic Chest Compression Device (ACCD):
 - Based on the international guidelines for CPR

Rural Fire Department Challenges

- ▣ Rural Paid and Volunteer Fire Agencies are geographically challenged to get additional resources on scene for a cardiac arrest emergency
- ▣ Volunteer agencies are even more challenged with getting resources to the scene of a medical aid such as cardiac arrest
- ▣ The Automatic Chest Compression Device placed on first out units will benefit patient care and utilization of resources

Benefits to Fire First Responders

- ▣ Cost effectiveness and staffing efficiency
- ▣ Eliminates the additional first responder rider to perform CPR in the back of an ambulance
- ▣ Frees first responders to provide other life-saving therapies without the limitations or difficulties of manual CPR
- ▣ Provides available resources on scene much faster to respond to additional emergencies

Local Pilot Study MCS Data

(Modesto FD, Ceres FD, SCFPD)

- ▣ The outcome data listed below is for the time period 11/01/2017 through 07/23/2018:
 - 391 CPR calls for MCS Units
 - ▣ (BC and two Engine Companies are dispatched to a CPR call)
 - The average time it takes a MCS unit to go back into service is 1 hr 34 mins!
 - ▣ Time is measured from dispatch to available on radio/station.



Evidenced Based Data

- ▣ The use of Automatic Chest Compression Devices are safe, effective and highly reliable
- ▣ ACCD ensures effective and quality compressions
- ▣ An ACCD helps to minimize pauses during CPR as compressions can continue while other procedures are being done

Evidenced Based Data

- ▣ Consistent cardiac compression profoundly increases the chance of return of spontaneous circulation
- ▣ An ACCD has shown to sustain higher blood flows to the brain, the heart and other internal organs compared to manual chest compressions

Evidenced Based Data

- ▣ Rescuers no longer have to compromise their own safety by providing compressions during transportation
- ▣ An ACCD provides prolonged periods of effective chest compressions without concern for provider fatigue
- ▣ Compressions do not stop when the patient is being transported to a gurney, into an ambulance, out of the ambulance or to the hospitals gurney

LUCAS DEVICE DEMONSTRATION



Staff Recommendations

- ▣ Authorize MVEMSA to expend System Enhancement Funds on behalf of Stanislaus County to purchase LUCAS Chest Compression devices for all public fire agencies and hospital district ambulance providers

