PREHOSPITAL MEDICAL ADVISORY COMMITTEE MEETING AGENDA (PMAC)

PMAC MEMBERS PER POLICY 8202:

Air Transport Provider Representative
11-Brian Harrison

American Medical Response
5-Douglas Key
Seth Dukes, MD (Chair)

BLS Ambulance Service Representative
12-Lori Lopez

Cathedral City Fire Department
5-Justin Vondriska

Corona Regional Medical Center
1-Robert Steele, MD
4-Tamera Roy

County Fire Chiefs' Non-Transport ALS Provic
10- Jennifer Antonucci

County Fire Chiefs' Non-Transport BLS Provic
9- Vacant

Desert Regional Medical Center
1-Joel Stillings, D.O
4-G. Stanley Hall

Eisenhower Health
1-Mandeep Daliwhal, MD (Ibanez)
4-Thomas Wofford

EMT / EMT-P Training Programs
6-Maggie Robles

EMT-at-Large
13 - Vacant

Paramedic-at-Large
14-Patrick Anderson

Hemet Valley Medical Center
1-Todd Hanna, MD
4-Trish Rita-Rita

Idyllwild Fire Protection District
5-Mark Lamont

Inland Valley Regional Medical Center
1-Zeke Foster, MD
4-Daniel Sitar

JFK Memorial Hospital
1-Timothy Rupp, MD
4- Evelin Millsap

Kaiser Permanente Riverside
1-Jonathan Dyreyes, MD
4-Carol Fuste

This Meeting of PMAC is on:
Monday, May 17, 2021
9:00 AM to 11:00 AM
Virtual Session via Microsoft TEAMS

1. **CALL TO ORDER & HOUSEKEEPING (3 Minutes)**
   Seth Dukes, MD (Chair)

2. **VIRTUAL ATTENDANCE (taken based on participant list)**
   Evelyn Pham (REMSA)

3. **APPROVAL OF MINUTES (3 Minutes)**
   February 22, 2021 Minutes— Seth Dukes, MD (Attachment A)

4. **STANDING REPORTS**
   4.1. Trauma System—Shanna Kissel (Attachment B)
   4.2. STEMI System— Leslie Duke (Attachment C)
   4.3. Stroke System— Leslie Duke (Attachment D)

5. **Other Reports**
   5.1. EMCC Report – Dan Bates

6. **DISCUSSION ITEMS, UNFINISHED & NEW BUSINESS**
   6.1. Unfinished Business –
   6.1.1. PMAC Representation
   6.1.1.1. RCFCA Non-Transport BLS provider position
   6.1.1.2. EMT-at-Large position
   6.1.2. HEMS Unified Protocol – Brian Harrison, Mercy Air
   6.2. Recognitions
   6.3. CQI Update – Lisa Madrid (Attachment E and reports)
   6.4. Education / Policy Update – Dustin Rascon
   6.5. 2020 REMSA CARES Data – Catherine Farrokhi
   6.6. BVM Device – Dr. Foster/Dr. Davis
   6.7. EMS Fellow Field Response Policy – Seth Dukes, MD (Attachment F)
   6.8. RODA Program Update – Sean Hakam
   6.9. COVID Update – Misty Plumley
   6.10 Action Item Review – REMSA Clinical Team

7. **REQUEST FOR DISCUSSIONS**
   Members can request that items be placed on the agenda for discussion at the following PMAC meeting. References to studies, presentations and supporting literature must be submitted to REMSA three weeks prior to the next PMAC meeting to allow ample time for preparation, distribution and review among committee members and other interested parties.

Loma Linda University Med. Center Murrieta
1-Kevin Flaig, MD
4-Kristin Butler

Menifee Valley Medical Center
1-Todd Hanna, MD
4-Matt Johnson

Kaiser Permanente Moreno Valley
1-George Salameh, MD
4-Katherine Heichel-Casas

Palo Verde Hospital
1-David Sincavage, MD
4-Nena Foreman

Parkview Community Hospital
1-Chad Clark, MD
4-Allan Patwaran

Rancho Springs Medical Center
1-Zeke Foster, MD
4-Sarah Young

Riverside Community Hospital
1-Stephen Patterson, MD
4-Sabrina Yamashiro

Riverside County Fire Department
5- Richard Harvey
8-Jeff Stout

Riverside County Police Association
7-Sean Hadden

Riverside University Health System Med. Center
1-Michael Mesisca, DO (Vice Chair)
4-Lori Maddox

San Gorgonio Memorial Medical Center
1-Richard Preci, MD
4-Angie Brady

Temecula Valley Hospital
1-Pranav Kachhi, MD
4-Jacquelyn Ramirez

Trauma Audit Comm. & Trauma Program Managers
2- Vacant
3-Brandon Woodward

Ex-officio Members:
1-Cameron Kaiser, MD, Public Health Officer
2-Reza Vaezazizi, MD, REMSA Medical Director
3-Trevor Douville, REMSA Director
4-Jeff Grange, MD, LLUMC
5-Phong Nguyen, MD, Redlands Community Hospital
6-Rodney Borger, MD, Arrowhead Regional Medical Center

8. ANNOUNCEMENTS (15 Minutes)

This is the time/place in which committee members and non-committee members can speak on items not on the agenda but within the purview of PMAC. Each announcement should be limited to two minutes unless extended by the PMAC Chairperson.

9. NEXT MEETING / ADJOURNMENT (1 Minute)

—Virtual Session via web platform

Members are requested to please sit at the table with name plates in order to identify members for an accurate count of votes

Please come prepared to discuss the agenda items. If you have any questions or comments, call or email Evelyn Pham at (951) 358-5029 / epham@rivco.org. PMAC Agendas with attachments are available at: www.rivcoems.org. Meeting minutes are audio recorded to facilitate dictation for minutes.

PMAC Draft Minutes
February 22, 2021

TOPIC	DISCUSSION	ACTION
1. CALL TO ORDER	PMAC Chair Dr. Seth Dukes called the meeting to order at 9:03 a.m.	
2. Virtual Attendance	Attendance taken based on participant list on Microsoft TEAMS.	
3. Approval of Minutes		The November 16, 2020 PMAC meeting minutes were approved with no changes.
4. STANDING REPORTS		
4.1 Trauma System Updates	2019 Trauma plan update was submitted to EMSA and pending approval. Traumatic arrest data continues to be reported out at TAC meetings. PMAC congratulated RUHS for receiving ACS Level 1 verification. Providers were reminded that this does not affect EMS field triage for trauma patients.	Information only.
4.2 STEMI System Updates	2019 STEMI plan update was submitted to EMSA and pending approval. Regional STEMI Committee has aligned the metric of first medical contact to cath lab team activation as a regional goal for 2021. STEMI-specific education is finalized and has been sent to providers for the Spring 2021 Policy Update Course. ePCR auditing has begun for OHCA with ROSC related to transporting to a STEMI center and aspirin administration. Opportunities for improvement will be sent to the corresponding agency for review and loop closure. Policies: changes to STEMI treatment policies were only related to formatting. STEMI dashboard posted on REMSA.US and Rivcoems.org was updated in January 2021 to reflect quarter 3, 2020 data related to the ImageTrend Patient Registry. The next Regional STEMI Committee meeting is on April 13, 2021.	Information only.
4.3 Stroke System Updates	2019 Stroke plan update was submitted to EMSA and pending approval. The Stroke Committee will merge one of the scheduled quarterly meetings into a Regional Committee meeting with ICEMA. This year, the regional meeting will occur on May 13, 2021. Stroke-specific education is finalized and has been sent to providers for the Spring 2021 Policy Update Course. Policies: changes to stroke treatment policies were only related to formatting. The REMSA Stroke Committee meeting for February 11th, 2021 was cancelled due to the overwhelming and increased	Information only.

PMAC Draft Minutes
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	workload the facilities and providers are facing with the COVID-19 surge. The stroke program managers meeting proceeded as scheduled. Stroke dashboard posted on REMSA.US and Rivcoems.org was updated December 2020 to reflect quarter 3, 2020 data related to the ImageTrend Patient Registry. The next Stroke Committee meeting is on May 13, 2021.	
5. OTHER REPORTS		
5.1 EMCC Report	EMCC has not met since 2020; and will resume meeting next quarter. Updates from EMCC will be provided at the next meeting.	Information only.
6. DISCUSSION ITEMS, UNFINISHED & NEW BUSINESS		
6.1 Unfinished Business	Unfinished business	
6.1.1 PMAC Representation **6.1.1.1 RCFCA Non-Transport ALS Provider position** **6.1.1.2 EMT-at-Large position** **6.1.2 HEMS Unified Protocol**	RCFCA Non-Transport ALS Providers designated Jennifer Antonucci as their representative. PMAC approved Jennifer Antonucci's designation. No nominations were brought forward for the EMT-at-Large position. The position is still open and will be brought back to the next PMAC meeting. PMAC continued discussion on the HEMS Unified Scope of Practice proposal. Brian Harrison reiterated their goal is to establish a uniform approach to patient care between the qualified Paramedic and RN partner during patient care, with the purpose to ensure proper balance of work while avoiding task saturation to ensure the highest quality of patient care. He highlighted 6 unified scope procedures that they would like for/may EMTP's to perform while working with a qualified transport nurse, which includes: pediatric intubation, rapid sequence intubation, video laryngoscopy, supraglottic airway devices, ventilator initiation, maintenance and management, along with intraosseous access for adult and pediatric patients. PMAC expressed their interest in looking at first attempt intubation success rate in both pediatric and adults. PMAC recommended data to be submitted on the success rate of intubations for them to review before making a final decision. HEMS Unified Protocol will remain on the agenda for the next PMAC meeting in May.	Jennifer Antonucci was approved as the RCFCA Non-Transport ALS Provider position.
6.2 CQI Update	REMSA met with the State end of January regarding CORE Measures. There was a reduction in the amount of CORE Measures, along with all time intervals removed. CORE Measures will be released no later than next month and will be published to release once it is finalized.	Information only.

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	Monitoring hypoglycemia, below 60 or 80 will be the next CQI project. CQI module coming soon for new rule writing. REMSA is working with FirstPass to put together a criteria sheet for triggers. Attached medical and traumatic cardiac arrest reports will become standing reports for CQI.	
6.3 Video Laryngoscopy	Dr. Patterson presented a PowerPoint regarding the added benefits of using video laryngoscopy. He highlighted the efficacy and first pass success rates with using video laryngoscopy in managing airway in the field. In conclusion, Dr. Patterson proposed to PMAC for consideration, the providers who are carrying hybrid devices (video laryngoscopy) to not require them to also carry direct laryngoscopy. This will require a change in our drug and equipment list, since currently all providers are required to carry direct laryngoscopy; carrying the video laryngoscopy is optional. Dr. Patterson, RCH motioned to remove the requirement to carry direct laryngoscopy if the provider is carrying the video laryngoscopy. Richard Harvey, Cal Fire, seconded the motion. PMAC voted 4 yes, 9 no and 1 abstained. Motion did not pass.	Information only.
6.4 Research Study: Use of Ultrasound by EMS	Dr. Vaezazizi reviewed a research study on the use of ultrasound by EMS. The study focuses generally on cardiac arrest patients. The ultrasound is very portable and sends images to a cloud. For those that are interested, please reach out to Dr. Vaezazizi to share the draft proposal when it is available.	Information only.
6.5 Education/Policy Update	Spring 2021 PUC training is available on REMSA.US for download in a video format or LMS zip folder. This year, included in the Spring PUC are targeted Stroke and STEMI education, APOD training, and ePCR transfers, which are all also available for download on the website and has been sent to all trainers. REMSA reminded the group to submit feedback regarding these trainings on the google form provided.	Information only.
6.6 RODA Grant	Riverside University Health System – Public Health along with Riverside EMS Agency presented with a PowerPoint presentation on the Riverside County Overdose Data to Action (RODA) grant. The RODA grant focuses on enhancing overdose surveillance and prevention in Riverside County. Data reviewed included fatal overdoses and suspected overdoses along with a breakdown of patient demographic and drug class. In the end, a key strategy was highlighted, which is to empower individuals to make safer choices. This includes trainings for first responders with education and skill-building in identifying and	Information only.

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	responding to different stressors, healthy coping, warnings signs etc. There will be 10 site trainings available to those who are interested sometime in May or June.	
6.7 COVID-19 Update	COVID-19 cases have been declining in the county. Case rates have met a threshold that will allow schools to reopen in a modified format. As positivity rate lowers, Riverside County is looking to move closer to the red tier. Vaccinations are ongoing.	
6.8 PMAC November date	PMAC agreed to move the November PMAC date to November 22, 2021.	PMAC November date, November 22, 2021.
6.9 Action Item Review	• RCFCA Non-Transport BLS Provider position • EMT-at-Large position • HEMS Unified Protocol	
7. Request for Discussions		
8. Announcements		
9. NEXT MEETING/ADJOURNMENT	Monday, May 17, 2021 (9:00 – 11:00 a.m.) Virtual Platform – Microsoft TEAMS	Information only.

FOR CONSIDERATION BY PMAC

DATE: April 28, 2021

TO: PMAC

FROM: Shanna Kissel, RN, Assistant Nurse Manager

SUBJECT: Trauma System

1. 2020 Trauma plan update was approved by EMSA in April. This current plan is on the remsa.us and rivcoems.org website.
2. Traumatic arrest data continues to be reported out at CQILT and TAC committee meetings.
3. Trauma policies in 5300 section updated and reviewed at TAC specifically to the addition of Level IV trauma centers in the future.

ACTION: PMAC should be prepared to receive the information and provide feedback to REMSA.

FOR CONSIDERATION BY PMAC

DATE: May 17, 2021

TO: PMAC

FROM: Leslie Duke, Specialty Care Coordinator, RN

SUBJECT: STEMI System

1. The annual STEMI EMS plan update has been approved by the State.
2. The STEMI dashboard posted on Rivcoems.org was updated to reflect Q4 2020 data related to the Image Trend STEMI patient registry.
3. A STEMI/ACS treatment audit tool has been developed using the First Pass platform and is in the validation stages.
4. Performance metric reports continue to be developed to improve tracking and guidance for CQI initiatives. Currently E2B times are being audited for opportunities for improvement.
5. Policies: No changes to STEMI treatment policies.
6. The REMSA STEMI System Advisory Committee was cancelled for April. The next REMSA meeting is scheduled for July 13, 2021.
7. STEMI Destination: Auditing related to OHCA w/ ROSC was completed for Q1 2021 with opportunities for Improvement Identified and discussed at CQILT.

Next STEMI Committee meeting is on July 13th, 2021 via video conference

Action: PMAC should be prepared to receive the information and provide feedback to the EMS Agency

FOR CONSIDERATION BY PMAC

DATE: May 17, 2021

TO: PMAC

FROM: Leslie Duke, Specialty Care Coordinator, RN

SUBJECT: Stroke System

1. The annual Stroke EMS plan update has been approved by the State.
2. The Stroke dashboard posted on Rivcoems.org was updated to reflect Q4 2020 data related to the Image Trend Stroke patient registry.
3. Temecula Valley Hospital was surveyed and designated by REMSA as a Comprehensive Stroke Center. Patients will continue to be transported to the closest receiving center by EMS.
4. Performance metric reports continue to be developed. Additional Stroke data will be added to the current reporting measures related to: percentage of LAMS score >/=4 on mLAPSS positive scales, Thrombectomy volume of transferred patients across the County, Door to CT time as a system, and Door to needle times as a system.
5. A Stroke treatment audit tool is being developed using the First Pass platform.
6. Policies: No changes to stroke treatment policies
7. The REMSA Stroke System Advisory Committee met as a Regional meeting with ICEMA on May 13, 2021. The next REMSA meeting is scheduled for August 12, 2021.

Next Stroke Committee meeting is on August 12th, 2021 via video conference

Action: PMAC should be prepared to receive the information and provide feedback to the EMS Agency

FOR CONSIDERATION BY PMAC

DATE: May 17, 2021

TO: PMAC

FROM: Lisa Madrid, EMS Specialist

SUBJECT: CQI

1. CORE measure group has had two meetings and will be finalizing the 2020 manual hopefully by June.

2. Medication errors have been identified as a system wide issue and require some discussion on the direction for how to prevent further in the future. Education vs. Protocol changes. The CQILT group agreed that education should be the first step.

3. CQI plan submission changes (see attachment). An email was sent to all EMS Coordinators and the PLN group on March 25th with the details of this upcoming change.

4. REMSA is working with our neighboring counties and Riverside County Fire to update the HEMs dispatch process.

5. The DATA team has added a new tab to the SCOPE dashboard called Cardiac Arrest 2021

Next CQILT meeting is on July 15th, 2021 via video conference

Action: PMAC should be prepared to receive the information and provide feedback to the EMS Agency

RIVERSIDE COUNTY EMS AGENCY

CQI Plan update 2021

Hello, REMSA has been conducting an audit of our EMS provider CQI plans. The decision has been made to implement an annual cycle submission. **All** providers need to have a current 2021 plan submitted by June 30, 2021. If you have recently submitted a plan (2020) please provide an update on the CQI activities for 2020. Add any changes or amendment to your plan as needed and resubmit the plan in its entirety. All plans need to be evaluated and updated every year. In our ever-changing paced data driven environment we can no longer go five (5) years before a new plan is submitted. Plans are meant to be "living documents" that are ever evolving.

With the 2021 plans submitted so that all providers and Base Hospitals will all be current in the 2021 year, we will implement a 12-month cycle for next updates. The data you are reviewing should be a one-year continuous cycle. The cycle will be a calendar year. For example this year will be evaluated from January 1, 2021 – December 31, 2021. Plans should become prospective as well as retrospective with real time changes and updates. Upon the end of the cycle your updates, amendments, changes to the upcoming 2022 year plan should be completed and the new plan submitted by December 31, 2021 as well as the annual CQI update of the 2021 year indicator evaluations which will be due by January 31, 2022. Please outline the changes in red and after they plan is reviewed by REMSA staff, the changes can then become permanent and the plan will receive an official approval letter.

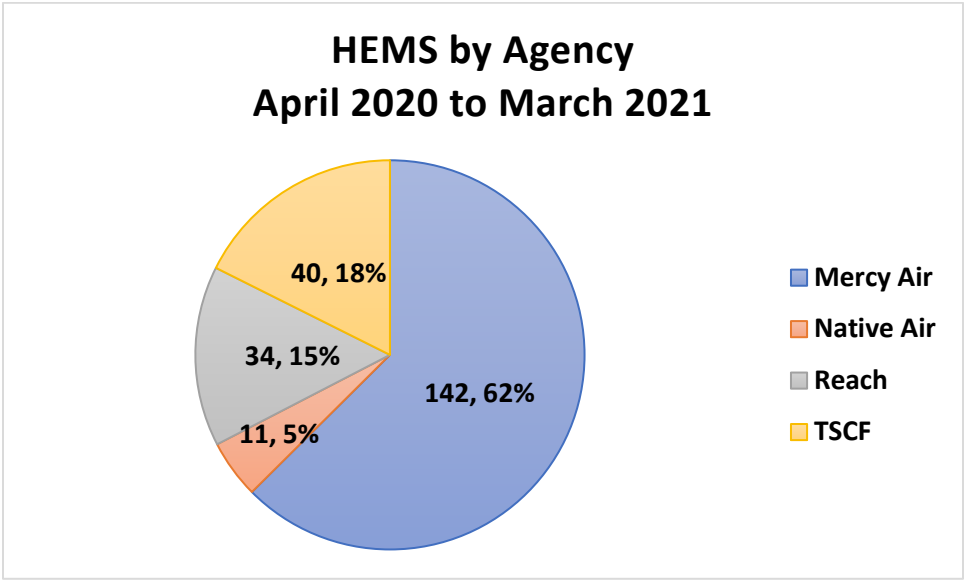
I have noticed most plans are missing the actual Indicator Detail Specifications Sheets please see appendix E and G of the Model Guidelines attached. All plans need to have the Indicator Detail Specifications Sheets within the plan in order for the plan to be complete according to Title 22. Please contact me for any assistance needed.

Sincerely,

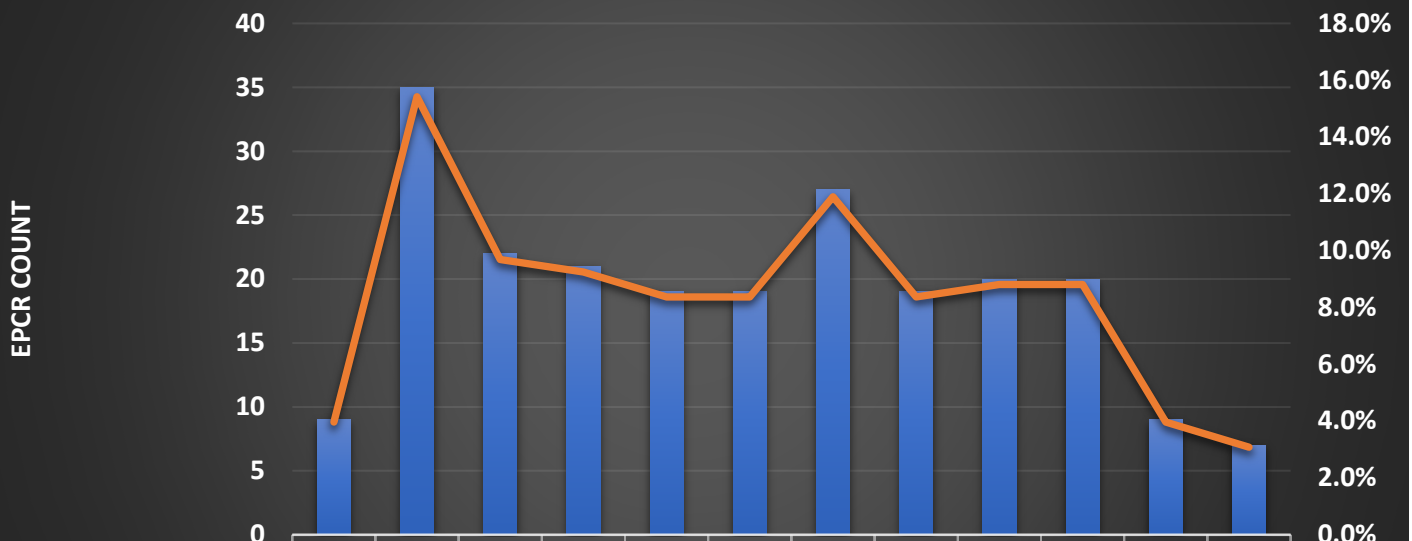
Lisa Madrid - Paramedic
EMS Specialist
CQI Coordinator
Riverside County EMS Agency (REMSA)
Emergency Management Department (EMD)

HEMS Data for CQILT April 2020 to March 2021

City	ePCRs	ePCR Percentage
Not Recorded	44	19.4%
Blythe	43	18.9%
Anza	25	11.0%
Mountain Center	17	7.5%
Hemet	13	5.7%
Indio	9	4.0%
Aguanga	9	4.0%
Thermal	8	3.5%
Temecula	8	3.5%
Desert Center	8	3.5%
Mecca	7	3.1%
Banning	5	2.2%
Salton City	4	1.8%
Lake Elsinore	4	1.8%
San Jacinto	3	1.3%
Idyllwild	3	1.3%
Coachella	3	1.3%
Murrieta	2	0.9%
Riverside	2	0.9%
Winchester	2	0.9%
Corona	2	0.9%
Thousand Palms	1	0.4%
Desert Hot Springs	1	0.4%
Wildomar	1	0.4%
Anza Census Designated Place	1	0.4%
Menifee	1	0.4%
Palm Desert	1	0.4%
Grand Total	**227**	**100%**

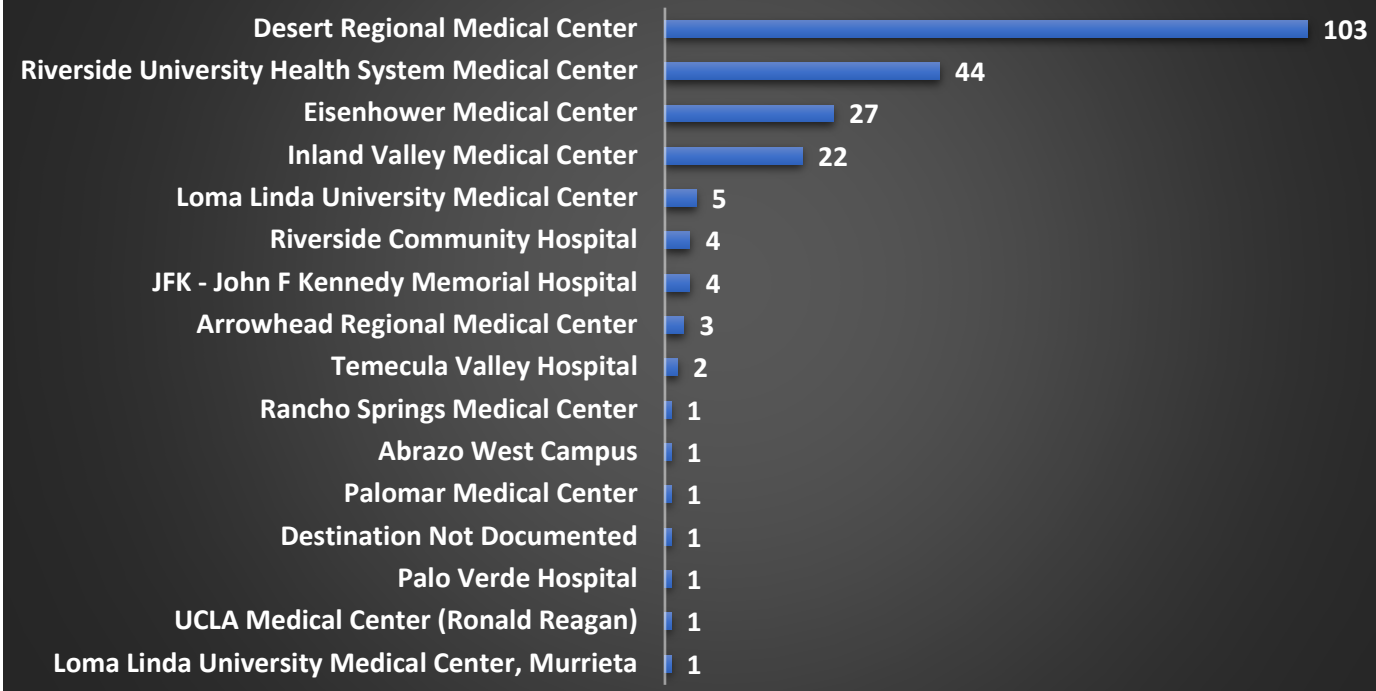


HEMS by Month
April 2020 to March 2021



	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
	2020									2021		
ePCRs	9	35	22	21	19	19	27	19	20	20	9	7
ePCR Percentage	4.0%	15.4%	9.7%	9.3%	8.4%	8.4%	11.9%	8.4%	8.8%	8.8%	4.0%	3.1%

HEMS by Destination
April 2020 to March 2021



Medications	Medication Count	Medication ePCRs	Medication ePCR Percentage
Amiodarone	**1**	**1**	**0.7%**
Amiodarone (Cordarone) (703)	1	1	0.7%
Aspirin	**2**	**2**	**1.3%**
Aspirin (1191)	2	2	1.3%
Atropine	**4**	**2**	**1.3%**
Atropine (1223)	4	2	1.3%
Calcium	**1**	**1**	**0.7%**
Calcium Gluconate (1908)	1	1	0.7%
Cefazolin	**4**	**3**	**2.0%**
Cefazolin Injection (1665049)	4	3	2.0%
Crofab	**1**	**1**	**0.7%**
Crofab (343044)	1	1	0.7%
Dextrose	**1**	**1**	**0.7%**
Dextrose 10% Water (237648)	1	1	0.7%
Diphenhydramine	**1**	**1**	**0.7%**
Diphenhydramine (Benadryl) (3498)	1	1	0.7%
Epinephrine	**11**	**5**	**3.3%**
Epinephrine (3992)	3	2	1.3%
Epinephrine 1:1,000 (1 mg/mL) (328316)	2	1	0.7%
Epinephrine 1:10,000 (0.1 mg/mL) (317361)	6	2	1.3%
Etomidate	**3**	**3**	**2.0%**
Etomidate (4177)	3	3	2.0%
Fentanyl	**146**	**74**	**48.7%**
Fentanyl (Sublimaze) (4337)	146	74	48.7%
Ketamine	**94**	**48**	**31.6%**
Ketamine (6130)	94	48	31.6%
Labetalol	**2**	**1**	**0.7%**
Labetalol (Normodyne, Trandate) (6185)	2	1	0.7%
Lactated Ringers	**2**	**2**	**1.3%**
Calcium Chloride / Lactate / Potassium Chloride / Sodium Chloride (1008377)	2	2	1.3%
Lidocaine	**1**	**1**	**0.7%**
Lidocaine (Xylocaine) (6387)	1	1	0.7%
Lorazepam	**9**	**8**	**5.3%**
Lorazepam (Ativan) (6470)	9	8	5.3%
Methylprednisolone	**1**	**1**	**0.7%**
Methylprednisolone (Solu-Medrol) (6902)	1	1	0.7%
Metoclopramide	**1**	**1**	**0.7%**
Metoclopramide (Reglan) (6915)	1	1	0.7%
Midazolam	**10**	**7**	**4.6%**
Midazolam (Versed) (6960)	10	7	4.6%
Nitroglycerin	**8**	**3**	**2.0%**
Nitroglycerin (4917)	8	3	2.0%

Normal Saline	**43**	**37**	**24.3%**
Normal Saline (125464)	35	29	19.1%
Sodium Chloride 3 % Injectable Solution (730781)	2	2	1.3%
Sodium Chloride Irrigation Solution (373902)	6	6	3.9%
Ondansetron	**39**	**37**	**24.3%**
Ondansetron (Zofran) (26225)	39	37	24.3%
Oxygen	**30**	**26**	**17.1%**
Oxygen (7806)	30	26	17.1%
Phenylephrine	**4**	**2**	**1.3%**
Phenylephrine (Neo-Synephrine) (8163)	4	2	1.3%
Rocuronium	**33**	**31**	**20.4%**
Rocuronium (Zemuron) (68139)	33	31	20.4%
Sodium Bicarbonate	**1**	**1**	**0.7%**
Sodium Bicarbonate (Cares) (36676)	1	1	0.7%
Succinylcholine	**2**	**2**	**1.3%**
Succinylcholine (10154)	2	2	1.3%
Tranexamic Acid	**6**	**5**	**3.3%**
Tranexamic Acid (TXA, Lysteda) (10691)	6	5	3.3%
Vasopressin	**10**	**3**	**2.0%**
Vasopressin (Cares) (11149)	10	3	2.0%
Grand Total	**471**	**152**	**100%**

Procedures	Procedure Count	Procedure ePCRs	Procedure ePCR Percentage
12 Lead ECG	**12**	**12**	**6.8%**
12 Lead ECG (268400002)	12	12	6.8%
Active External Warming	**2**	**2**	**1.1%**
Active External Warming (431949004)	2	2	1.1%
Airway Adjunct	**2**	**2**	**1.1%**
Nasopharyngeal Airway (182692007)	1	1	0.6%
Oropharyngeal Airway (7443007)	1	1	0.6%
Airway Procedure	**10**	**10**	**5.7%**
Airway Procedure (232663008)	10	10	5.7%
Airway Suctioning	**1**	**1**	**0.6%**
Airway Suctioned (230040009)	1	1	0.6%
Bleeding Control	**3**	**2**	**1.1%**
Pressure Dressing for Bleeding (26906007)	1	1	0.6%
Tourniquet for Bleeding (20655006)	2	1	0.6%
Blood Glucose Measurement	**10**	**10**	**5.7%**
Capillary Blood Glucose Measurement (302789003)	10	10	5.7%
Capnography	**2**	**1**	**0.6%**
Etco2 Colorimetric Detection (428482009)	1	1	0.6%
Etco2 Digital Capnography (425543005)	1	1	0.6%
Cervical Spine Stabilization	**27**	**20**	**11.4%**
Cervical Spine Stabilization (398041008)	14	13	7.4%
Stabilization of Spine (426498007)	13	13	7.4%
Chest Tube Insertion	**3**	**3**	**1.7%**
Chest Tube Insertion (264957007)	3	3	1.7%
CPR	**4**	**2**	**1.1%**
Manual CPR (89666000)	1	1	0.6%
Mechanical Device CPR (429283006)	3	1	0.6%
Defibrillation	**1**	**1**	**0.6%**
Defibrillation Using Automated External Cardiac Defibrillator (450661000124102)	1	1	0.6%
Electrocardiographic Monitoring	**66**	**66**	**37.5%**
4 Lead EKG Obtained (-5)	10	10	5.7%
Cardiac Monitoring (Regime/Therapy) (23852006)	56	56	31.8%
Environmental Management	**2**	**1**	**0.6%**
Environmental Care Procedure (225288009)	2	1	0.6%
Hand Ventilation	**5**	**5**	**2.8%**
Hand Ventilation by Anesthesia Bag (243140006)	1	1	0.6%
Hand Ventilation by Bag Valve Mask (425447009)	4	4	2.3%
Intraosseous (IO)	**6**	**5**	**2.8%**
Intraosseous (IO) (430824005)	6	5	2.8%
Intravenous (IV)	**68**	**52**	**29.5%**
Conversion of Intravenous Infusion To Saline Lock (425074000)	2	2	1.1%
Intravenous (IV) (392230005)	51	44	25.0%
Venous Access Device Maintenance (386493006)	15	12	6.8%

Intubation	**36**	**33**	**18.8%**
Endotracheal Intubation-Video Laryngoscopy (-3)	1	1	0.6%
Orotracheal Intubation (232674004)	35	32	18.2%
Laryngoscopy	**2**	**2**	**1.1%**
Direct Laryngoscopy (78121007)	1	1	0.6%
Indirect Laryngoscopy (673005)	1	1	0.6%
Nasogastric Tube	**5**	**5**	**2.8%**
Nasogastric Tube Insertion (87750000)	5	5	2.8%
Needle Chest Decompression	**9**	**7**	**4.0%**
Needle Chest Decompression (182705007)	9	7	4.0%
Orogastric Tube	**7**	**7**	**4.0%**
Orogastric Tube Insertion (235425002)	7	7	4.0%
Patient Assessment	**23**	**21**	**11.9%**
ALS Assessment (-41)	2	2	1.1%
Evaluation Procedure (386053000)	9	9	5.1%
Monitor Patient (182777000)	12	12	6.8%
Physical Restraint	**5**	**5**	**2.8%**
Placing Restraint (68894007)	5	5	2.8%
Pulse Oximetry Monitoring	**1**	**1**	**0.6%**
Pulse Oximetry (252465000)	1	1	0.6%
Report	**92**	**87**	**49.4%**
Report to Physician (304562007)	92	87	49.4%
Safety Management	**123**	**113**	**64.2%**
Safety Precautions (386812007)	123	113	64.2%
Splint	**2**	**2**	**1.1%**
Splint Applied (79321009)	2	2	1.1%
Supraglottic Airway	**1**	**1**	**0.6%**
Esophageal Tracheal Double Lumen Supraglottic Airway Device (Physical Object) (429375002)	1	1	0.6%
Wound Care	**4**	**4**	**2.3%**
Wound Care (225358003)	4	4	2.3%
Grand Total	**534**	**176**	**100%**

Medical Cardiac Arrest- 1/1/2020-3/31/2021

"911 Response", "Cardiac arrest during EMS event is not blank ", Primary or Secondary impression "Cardiac arrest"

		2020				2021						Average	
		Qtr1		*Qtr2*		*Qtr3*		*Qtr4*		*Qtr1*			
	Total Incidents	1649		1610		1631		2072		2030		**1798**	
	Total Approx., Patients	1175		1212		1260		1472		1447		**1313**	
By Age group	Children (<=12)	12	1%	15	1%	11	1%	13	1%	14	1%	**13**	**1%**
	Adolescents (13-17)	7	1%	4	0.3%	7	1%	5	0.3%	8	0.6%	**6**	**0%**
	Young Adults (18-35)	94	8%	94	8%	113	9%	113	8%	100	7%	**103**	**8%**
	Adults(36-64)	392	33%	393	32%	424	34%	503	34%	484	33%	**439**	**33%**
	Adults(65-79)	371	32%	415	34%	426	34%	477	32%	492	34%	**436**	**33%**
	Older Adults (>=80)	299	25%	291	24%	279	22%	361	25%	349	24%	**316**	**24%**
ROSC	Yes	233	20%	173	14%	183	15%	206	14%	227	16%	**204**	**16%**
	No	942	80%	1039	86%	1077	85%	1266	86%	1220	84%	**1109**	**84%**
Cardiac Arrest during EMS event	Yes, Prior to EMS Arrival	1079	91.8%	1117	92%	1174	93.2%	1377	93.5%	1339	92.5%	**1217**	**92.7%**
	Yes, After EMS Arrival	94	8.0%	95	8%	84	6.7%	92	6.3%	107	7.4%	**94**	**7.2%**
	No	2	0.2%			2	0.2%	3	0.2%	1	0.1%	**2**	**0.2%**
Disposition	Treated and Transported	323	27%	262	22%	274	22%	316	21%	325	22%	**300**	**23%**
	Prounounced in Field	852	73%	949	78%	986	78%	1156	79%	1122	78%	**1013**	**77%**

	2020				2021	Average
	Qtr1	*Qtr2*	*Qtr3*	*Qtr4*	*Qtr1*	
Total Transports	**323**	**263**	**276**	**316**	**325**	**301**
STEMI center	**190 59%**	**151 57%**	**167 61%**	**177 56%**	**181 56%**	**173 58%**
Riverside Community Hospital	64 34%	49 32%	49 29%	60 34%	64 35%	57 33%
Desert Regional Medical Center	34 18%	23 15%	30 18%	27 15%	22 12%	27 16%
Loma Linda University Medical Center, Murrieta	33 17%	31 21%	36 22%	37 21%	47 26%	37 21%
Eisenhower Medical Center	30 16%	20 13%	17 10%	24 14%	23 13%	23 13%
JFK - John F Kennedy Memorial Hospital	23 12%	25 17%	25 15%	24 14%	19 10%	23 13%
Temecula Valley Hospital	6 3%	3 2%	10 6%	5 3%	6 3%	6 3%
Non-STEMI Center	**133 41%**	**112 43%**	**109 39%**	**134 42%**	**141 43%**	**126 42%**
Hemet Valley Medical Center	34 26%	24 21%	20 18%	28 21%	30 21%	27 22%
Riverside University Health System Medical Cente	21 16%	14 13%	18 17%	18 14%	32 23%	21 16%
Corona Regional Medical Center	17 13%	20 18%	18 17%	19 14%	19 13%	19 15%
San Gorgonio Memorial Hospital	13 10%	8 7%	14 13%	13 10%	11 8%	12 9%
Inland Valley Medical Center	10 8%	7 6%	5 5%	8 6%	8 6%	8 6%
Parkview Community Hospital Medical Center	7 5%	14 13%	5 5%	18 14%	10 7%	11 9%
Kaiser Permanente, Riverside	12 9%	4 4%	11 10%	9 7%	10 7%	9 7%
Menifee Valley Medical Center	5 4%	4 4%	1 1%	4 3%	5 4%	4 3%
Kaiser Permanente, Ontario	2 2%	2 2%	2 2%	7 5%	5 4%	4 3%
Palo Verde Hospital	3 2%	5 4%	2 2%	1 1%	1 1%	2 2%
Rancho Springs Medical Center	3 2%	4 4%	3 3%	3 2%	2 1%	3 2%
Kaiser Permanente, Moreno Valley		2 2%	3 3%	1 1%	2 1%	2 2%
Loma Linda University Medical Center		1 1%	2 2%	2 2%	4 3%	2 2%
Kindred Hospital, Ontario					1 1%	1 1%
Kaiser Permanente, Fontana		1 1%	1 1%	2 2%		1 1%
St. Bernardine Medical Center					1 1%	1 1%
Facility name not available	6 5%	2 2%	4 4%		3 2%	4 3%

Median Time		2020				2021	Average
		Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	
Patient contact time (etimes07-etimes03)	First Response	0:07:07	0:07:59	0:07:57	0:07:52	0:07:45	**0:07:44**
	Ground Transport	0:08:48	0:08:29	0:08:46	0:09:18	0:08:49	**0:08:50**
	Total	**0:07:58**	**0:08:11**	**0:08:19**	**0:08:15**	**0:08:10**	**0:08:11**
Scene time (etimes09-etimes07)	First Response	0:22:34	0:19:57	0:22:49	0:23:00	0:21:59	**0:22:04**
	Ground Transport	0:18:03	0:18:58	0:18:00	0:19:44	0:18:39	**0:18:41**
	Total	**0:20:18**	**0:19:22**	**0:19:34**	**0:21:10**	**0:20:00**	**0:20:05**
First CPR to Determination of Death (earrest15-earrest19) Disposition :"Dead at Scene"	First Response	0:25:00	0:24:58	0:24:43			**0:24:54**
	Ground Transport	0:26:21	0:25:44	0:26:40			**0:26:15**
	Total	**0:25:41**	**0:25:11**	**0:25:10**			**0:25:21**
First CPR to Transport (etimes09-earrest19)	Ground Transport	0:24:45	0:24:19	0:24:02	0:26:12	0:24:08	**0:24:41**
Patient contact to transport time (etimes11-etimes07) Dispo= "Patient treated and transported by this unit"	**Ground Transport**	0:29:28	0:29:18	0:30:15	0:30:02	0:29:59	**0:29:49**
Patient contact to detemination of death (earrest15-etimes07)	**First Response**						
	Dead at Scene, No Resuscitation,	0:01:00	0:01:00	0:00:42			**0:00:54**
	Resuscitation Attempted, Dead at	0:23:00	0:23:08	0:23:06			**0:23:05**
	Ground Transport						
	Dead at Scene, No Resuscitation,	0:01:07	0:01:05	0:01:00			**0:01:04**
	Resuscitation Attempted, Dead at	0:22:00	0:22:00	0:21:43			**0:21:54**

Data is based on Incidents and documentation

Traumatic Cardiac Arrest Summary Report- 2020-21

"911 Response", "Cardiac arrest during EMS event=Yes", Cardiac arrest Etiology="Trauma"

		2020								2021		Average	
		Qtr1		*Qtr2*		*Qtr3*		*Qtr4*		*Qtr1*			
	Total Incidents	137		129		175		176		140		**151**	
Age	Average Age	39		41		42		47		43		**42**	
	Median Age	35		34		40		40		40		**38**	
By Age group	0-9	7	5%	6	5%	12	7%	2	1%	7	5%	**8**	**5%**
	10-14	1	1%	4	3%	2	1%	2	1%	4	3%	**3**	**2%**
	15-24	23	17%	17	13%	14	8%	14	8%	20	14%	**19**	**12%**
	25-34	34	25%	38	29%	36	21%	48	27%	25	18%	**33**	**22%**
	35-44	26	19%	16	12%	46	26%	27	15%	21	15%	**27**	**18%**
	45-54	15	11%	7	5%	17	10%	25	14%	23	16%	**16**	**10%**
	55-64	9	7%	12	9%	17	10%	23	13%	9	6%	**12**	**8%**
	65-79	8	6%	20	16%	18	10%	11	6%	26	19%	**18**	**12%**
	80+	10	7%	9	7%	13	7%	24	14%	5	4%	**9**	**6%**
By Ambulance Zone	Northwest Zone	46	34%	40	31%	38	22%	43	24%	40	29%	**41**	**27%**
	Desert Zone	18	13%	18	14%	38	22%	37	21%	33	24%	**27**	**18%**
	Southwest Zone	19	14%	16	12%	29	17%	29	16%	26	19%	**23**	**15%**
	Central Zone	25	18%	27	21%	30	17%	23	13%	21	15%	**26**	**17%**
	San Jacinto Zone	20	15%	22	17%	22	13%	27	15%	11	8%	**19**	**12%**
	Pass Zone	4	3%	3	2%	7	4%	5	3%	5	4%	**5**	**3%**
	Mountain Plateau Zone	4	3%	1	1%	10	6%	7	4%	3	2%	**5**	**3%**
	Palo Verde Zone	1	1%	2	2%	1	1%	3	2%	1	1%	**1**	**1%**
Injury Mechanism	Blunt only	76	55%	82	64%	80	46%	105	60%	72	51%	**78**	**51%**
	Penetrating	34	25%	19	15%	46	26%	34	19%	24	17%	**31**	**20%**
	Blunt and penetrating	3	2%	3	2%	3	2%	2	1%	3	2%	**3**	**2%**
	Burn					1	1%	1	1%	2	1%	**2**	**1%**
	Blunt and Burn	4	3%			2	1%	0	0%	2	1%	**3**	**2%**
	Other	10	7%	13	10%	33	19%	19	11%	16	11%	**18**	**12%**
	Not documented	10	7%	12	9%	10	6%	15	9%	21	15%	**13**	**9%**
Odomeater Reading	Total Incidents documented Odometer reading	25		20		25		28		23		**23**	
	Sum of Odometer Reading	259		172		229		251		220		**220**	
	Average of Odometer Reading	10		9		9		9		10		**10**	
	Max of Odometer Reading	26		20		25		25		27		**25**	

Traumatic Cardiac Arrest *Transport Facility*

	2020								2021		Average	
	Qtr1		*Qtr2*		*Qtr3*		*Qtr4*		*Qtr1*			
Total Transports Dispo:Treated and Transported by this unit	**25**		**20**		**25**		**28**		**23**		**24**	
Trauma center	**17**	**68%**	**13**	**65%**	**14**	**56%**	**17**	**61%**	**15**	**65%**	**15**	**63%**
Riverside Community Hospital	2	8%	1	5%	3	12%	7	25%	6	26%	4	16%
Riverside University Health System Medical Center	6	24%	7	35%	5	20%	4	14%	5	22%	5	22%
Desert Regional Medical Center	5	20%	1	5%	5	20%	4	14%	0	0%	3	12%
Inland Valley Medical Center	4	16%	4	20%	1	4%	2	7%	4	17%	3	12%
Non-Trauma Center	**8**	**32%**	**7**	**35%**	**11**	**44%**	**11**	**39%**	**8**	**35%**	**9**	**37%**
Hemet Valley Medical Center			3	15%	3	12%	3	11%			3	12%
JFK - John F Kennedy Memorial Hospital			1	5%	1	4%	3	11%			2	7%
Corona Regional Medical Center	1	4%	1	5%	2	8%					1	6%
San Gorgonio Memorial Hospital	1	4%			1	4%			2	9%	1	6%
Eisenhower Medical Center			1	5%			1	4%	2	9%	1	6%
Palo Verde Hospital			1	5%	1	4%					1	4%
Menifee Valley Medical Center	1	4%									1	4%
Kaiser Riverside Medical Center	1	4%									1	4%
Loma Linda University Medical Center, Murrieta	4	16%			2	8%	2	7%	2	9%	3	10%
Temecula Valley Hospital							1	4%	1	4%	1	4%
St. Bernardine Medical Center									1	4%	1	4%
Parkview Community Hospital Medical Center					1	4%					1	4%
Kaiser Permanente, Ontario							1	4%			1	4%

Traumatic Cardiac Arrest *Base Hospital Contact*

Base Hospital contact("Yes/No") (itdisposition.007)	2020								2021		Average	
By Agency	*Qtr1*		*Qtr2*		*Qtr3*		*Qtr4*		*Qtr1*			
	137		129		175		176		140		151	
Yes	**30**	**22%**	**27**	**21%**	**32**	**18%**	**20**	**11%**	**21**	**15%**	**22**	**14%**
First Response	19	14%	15	12%	13	7%	13	7%	11	8%	12	8%
Ground Transport	11	8%	12	9%	19	11%	7	4%	10	7%	10	6%
No	**107**	**78%**	**102**	**79%**	**143**	**82%**	**156**	**89%**	**119**	**85%**	**105**	**69%**
First Response	64	47%	72	56%	96	55%	100	57%	77	55%	68	45%
Ground Transport	43	31%	30	23%	47	27%	56	32%	42	30%	36	24%
By Disposition (edisposition.12)												
Yes	**30**	**22%**	**27**	**21%**	**32**	**18%**	**20**	**11%**	**21**	**15%**	**22**	**25%**
Patient Treated and Transported by this EMS Unit	11	37%	10	37%	8	25%	6	30%	8	38%	7	37%
Dead at scene	7	23%	7	26%	9	28%	5	25%	4	19%	5	29%
Patient Treated and Transported with this Crew in Another EMS Unit	11	37%	9	33%	6	19%	9	45%	9	43%	7	28%
Patient Treated and Care Transferred to Another EMS Unit	1	3%	1	4%							1	4%
No	**107**	**78%**	**102**	**79%**	**143**	**82%**	**156**	**89%**	**119**	**85%**	**105**	**75%**
Dead at scene	86	80%	86	84%	127	89%	122	78%	90	76%	85	82%
Patient Treated and Transported by this EMS Unit	14	13%	10	10%	8	6%	22	14%	15	13%	12	11%
Patient Treated and Transported with this Crew in Another EMS Unit	6	6%	6	6%	6	4%	11	7%	12	10%	7	6%
Patient Treated and Care Transferred to Another EMS Unit	1	1%			2	1%	1	1%	2	2%	1	1%

Traumatic Cardiac Arrest *Response Times*

Median Time		2020				2021	Average
		Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Median Value
Patient contact time (etimes07-etimes03)	First Response	0:07:48	0:08:22	0:08:18	0:08:35	0:07:37	0:08:08
	Ground Transport	0:08:28	0:08:06	0:08:20	0:09:03	0:08:20	0:08:27
	Total	**0:08:08**	**0:08:20**	**0:08:18**	**0:08:43**	**0:07:52**	**0:08:16**
Scene time (etimes09-etimes07)	First Response	0:14:52	0:11:01	* 0:25:07	0:16:06	0:13:00	0:13:45
	Ground Transport	0:10:06	0:09:16	0:09:11	0:10:22	0:10:55	0:09:58
	Total	**0:12:29**	**0:11:01**	**0:13:56**	**0:14:11**	**0:12:48**	**0:12:53**
First CPR to Determination of Death (earrest15-earrest19) Disposition :"Res., attempted, Dead at Scene"	First Response	*N<10*	*N<10*	0:24:00			0:24:00
	Ground Transport	*N<10*	*N<10*	0:26:04			0:26:04
	Total	**N<10**	**0:13:04**	**0:24:11**			**0:18:37**
First CPR to Transport (etimes09-earrest19)	Ground Transport	0:16:58	N<10	0:18:51	N<10	N<10	0:17:55
Patient contact to transport time (etimes11-etimes07) Dispo= "Patient treated and transported by this unit"	Ground Transport	0:25:56	0:24:59	0:24:28	0:25:42	0:27:45	0:25:46
Patient contact to detemination of death (earrest15-etimes07)	**First Response**						
	Dead at Scene, No Resuscitation, No Transport	0:01:00	0:01:00	0:00:50			0:00:57
	Resuscitation Attempted, Dead at Scene, No Transport	0:16:45	0:11:32	** 0:20:30			0:14:08
	Ground Transport						
	Dead at Scene, No Resuscitation, No Transport	0:01:32	0:00:40	0:01:57			0:01:23
	Resuscitation Attempted, Dead at Scene, No Transport	0:18:09	0:17:11	0:19:29			0:18:17

** In Q3, 2020 12 responses by First Response agencies reported >20min scene time. These included 8 penetrating, 1 blunt, and 3 drowning incidents.*

*** In Q3,2020 15 responses by First Response Agencies had time intervals greater than 20 minutes. Of these, 8 involved drowning incidents.*

Number of Responses		2020				2021
		Qtr1	Qtr2	Qtr3	Qtr4	Qtr1
Patient contact time (etimes07-etimes03)	First Response	83	85	100	113	88
	Ground Transport	54	42	66	63	52
	Total	**137**	**127**	**166**	**176**	**140**
Scene time (etimes09-etimes07)	First Response	22	17	22	23	23
	Ground Transport	26	21	25	29	23
	Total	**48**	**38**	**47**	**52**	**46**
First CPR to Determination of Death (earrest15-earrest19) Disposition :"Res., attempted, Dead at Scene"	First Response	5	8	16		
	Ground Transport	4	4	12		
	Total	**9**	**12**	**28**		
First CPR to Transport (etimes09-earrest19)	Ground Transport	12	9	10	8	9
Patient contact to transport time (etimes11-etimes07) Dispo= "Patient treated and transported by this unit"	Ground Transport	24	20	24	28	22
Patient contact to detemination of death (earrest15-etimes07)	**First Response**	**52**	**60**	**69**		
	Dead at Scene, No Resuscitation, No Transport	38	41	46		
	Resuscitation Attempted, Dead at Scene, No Transport	14	19	23		
	Ground Transport	**28**	**20**	**35**		
	Dead at Scene, No Resuscitation, No Transport	16	10	16		
	Resuscitation Attempted, Dead at Scene, No Transport	12	10	19		
		80	**80**	**104**		

Policy	

Effective	Expires

Policy: **EMS Physician on Scene**	Approval: Medical Director	Signed
Applies To: **FR, EMT, AEMT, PM, EMS System**	Approval: REMSA Director	Signed

Purpose

To establish criteria for LEMSA approved EMS physicians "County EMS Physician" (CEMSPs) to serve as direct medical control when present in the field.

Authority

California Health and Safety Code, Section 1798.6 (a) provides that "authority for patient health care management in an emergency shall be vested in that licensed or certified health care professional at the scene of an emergency who is most medically qualified specific to the provision of rendering emergency medical care."

Definitions / Eligibility

Membership in the CEMSP will be limited to physicians with expertise and training in Emergency/EMS Medicine. CEMSPs must have an active license in the State of California to practice Medicine. CEMSPs must be board certified or board eligible in Emergency Medicine or EMS. Examples of eligible physicians include: Medical Director and Assistant Medical Director of the local EMS Agency, Provider Agency Medical Director, Medical Director of an approved ICEMA based Paramedic Training School, Base Hospital Medical Director, or an EMS Fellow in a fellowship program.

> **Base Hospital Medical Director:** A physician who provides oversight for operations at a Base Hospital.
>
> **EMS Fellow:** A physician who is participating in an accredited postgraduate EMS Fellowship training program following successful completion of a residency program in emergency medicine.

Provider Agency Medical Director: A physician designated by an approved EMS provider Agency to advise and coordinate the medical aspects of field care.

Principles

Although the law does not preclude a physician at the scene of a medical emergency from rendering patient care, it does prohibit them from directing paramedic personnel in advanced life support procedures. Such direction must come from the base hospital unless direct voice communication with the base hospital cannot be established or maintained. This policy allows the approved physicians to direct paramedics in advanced life support procedures at the scene of a medical emergency.

A CEMSP at the scene of an emergency may direct EMS personnel in lieu of base hospital contact.

All CEMSPs must be approved by the Local EMS Agency (LEMSA) Medical Director.

Policy:

I. Physician Identification

A. Paramedics shall obtain proper identification of the CEMSP, consisting of the physician's CEMSP card and note the physician's name, CEMSP number and expiration date on the EMS report Form.

B. When a physician on scene does not have identification or is in phone contact only, base hospital contact should be made to determine the extent of permissible interaction between the paramedics and the physician.

II. Patient Care

A. CEMSPs have the authority to provide on-scene medical control and pre-hospital providers can receive orders from the CEMSP and do not have to contact the base station for orders. All CEMSP physician orders must be consistent with the local EMS Agency policies and procedures.

B. EMS providers are still required to provide appropriate notification of the receiving hospital.

C. CEMSPs may perform medical care / procedures at the scene of an emergency.

III. Patient Destination

A. Except when the physician on scene has accepted responsibility for patient care, patient destination shall be determined by the base hospital if applicable.

B. If the CEMSP has accepted responsibility for patient care, the patient may be transported to a general acute care hospital with a licensed basic emergency department chosen by the physician.

C. If the paramedic provider agency determines that such transport would unreasonably remove the transport unit from the area, an alternate destination shall be agreed upon between the physician at the scene and the base hospital physician.

D. If the patient's condition permits, as determined by the CEMSP, alternate transportation may be arranged.

IV. Liability

A. Liability insurance is the responsibility of the CEMSPs parent agency.