



**RIVERSIDE COUNTY  
EMERGENCY MEDICAL SERVICES  
AGENCY**

**TRAUMA SYSTEM UPDATE  
2020**

**Reza Vaezazizi, MD, REMSA Medical Director  
Trevor Douville, EMS Administrator  
Shanna Kissel, MSN, RN, Assistant Nurse Manager**

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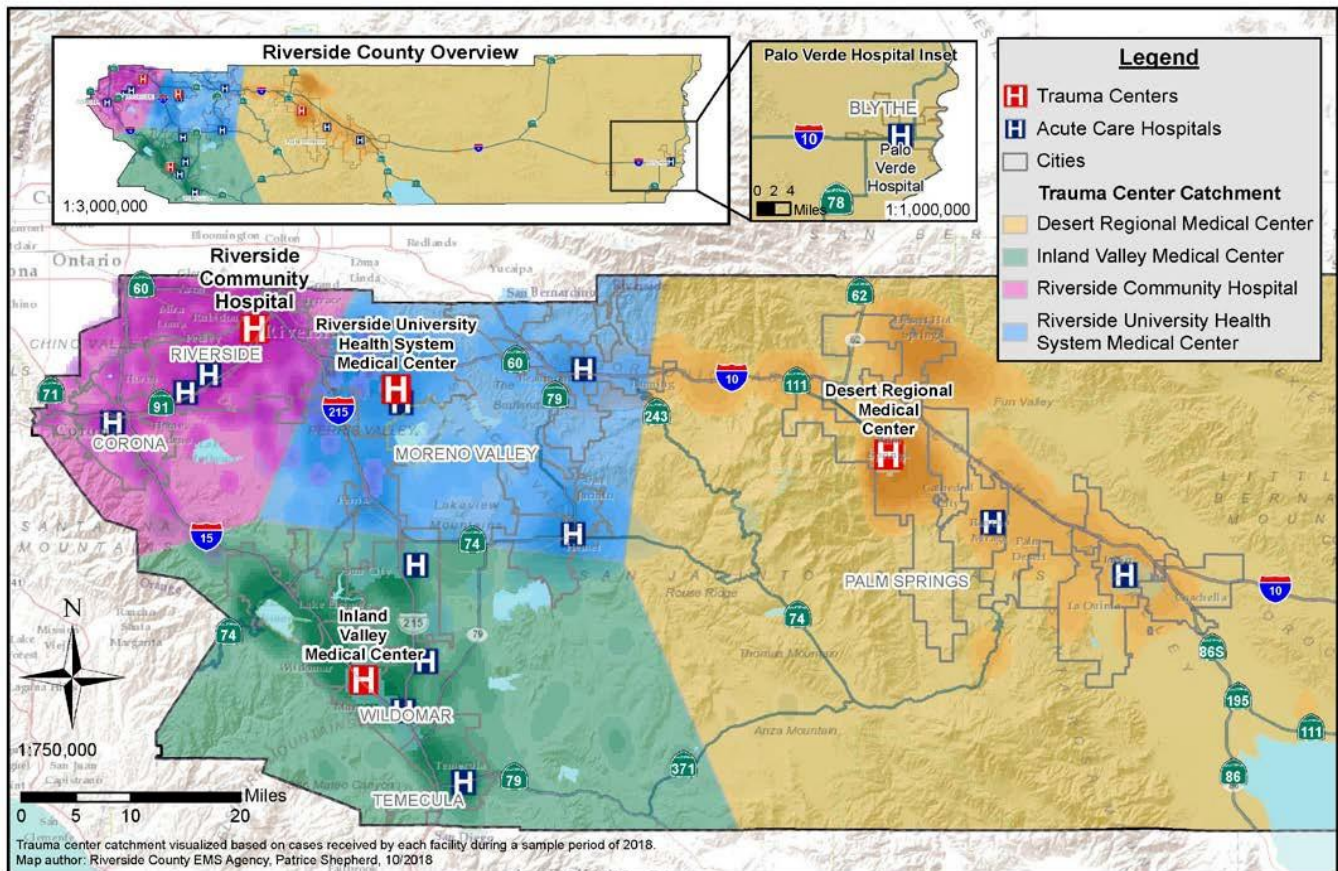
**Trauma System Summary**

The Riverside County EMS Agency (REMSA) Trauma Care System Plan was developed in compliance with Section 1798.160, et seq., Health and Safety Code. REMSA’s organized system of the care for trauma patients has been in place since 1994 with approval by the California EMS Authority (EMSA) in 1995. The plan was last updated and approved by EMSA in 2019. This current Trauma Plan update reflects the 2019 data and information for Riverside County.

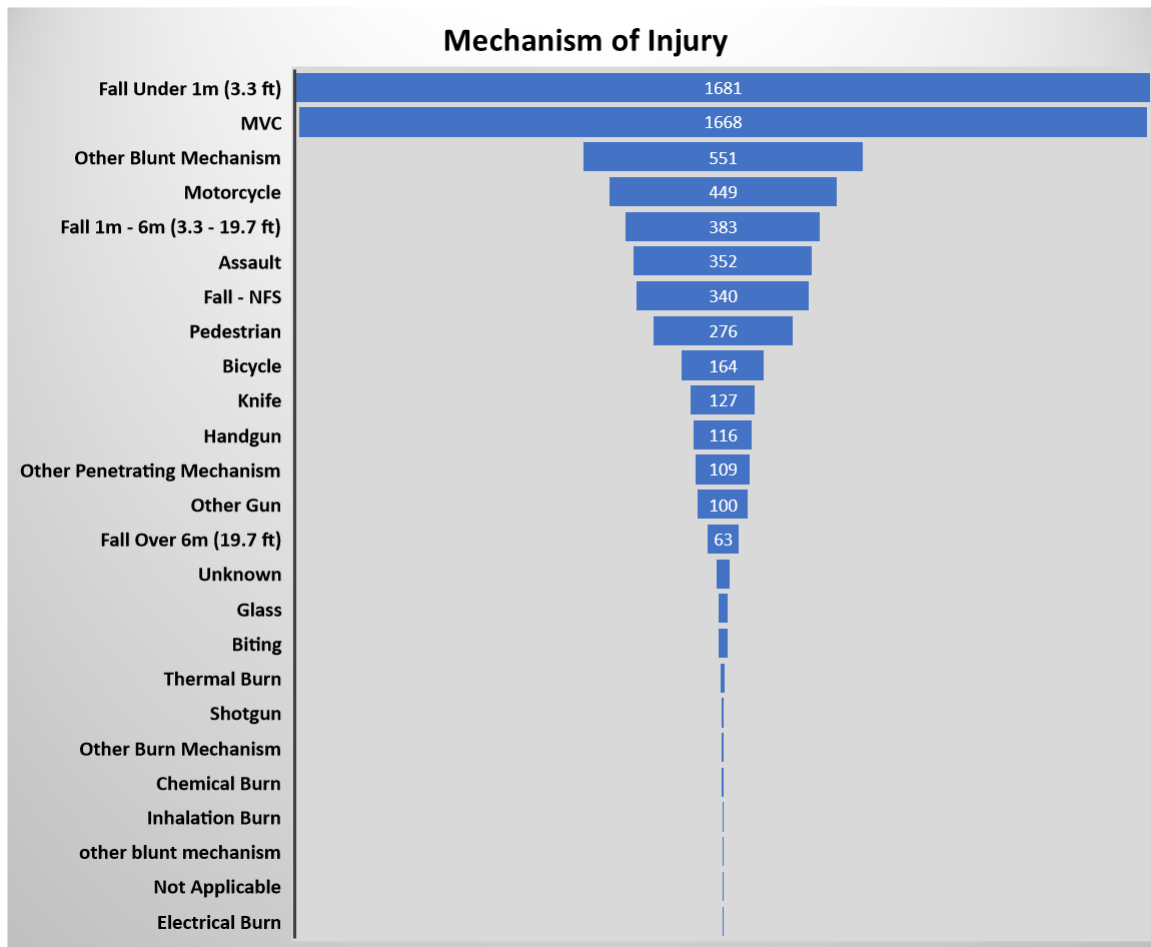
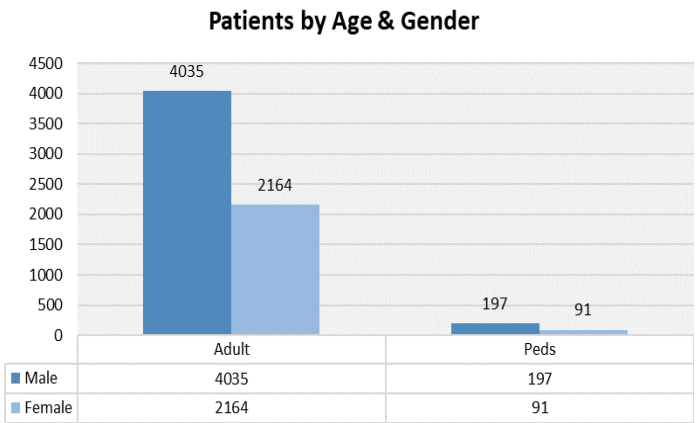
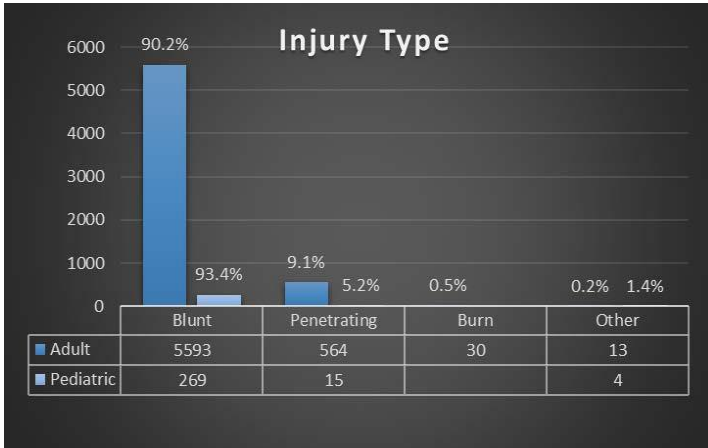
Riverside County’s jurisdiction includes one (1) Level I Trauma Center and three (3) Level II Trauma Centers--one of which is a Level II Pediatric Trauma Center (PTC), geographically located in the central region of the County. Catchment areas of the four trauma centers have not changed and are distributed evenly respective to each region’s population density. Based on the trauma center data, number of facilities and locations within the county, there is no need for additional trauma centers. Riverside is unique with the placement of the trauma centers with one in the Coachella valley, one in the central region, one in the southern region and one in the northwest region. Additionally, just to the north, in San Bernardino, there are two (2) trauma centers – one (1) Adult and Pediatric Level I and one (1) Adult Level II designated centers.



**Riverside County Trauma Center Catchment Areas**



## 2019 Riverside County Trauma Demographics

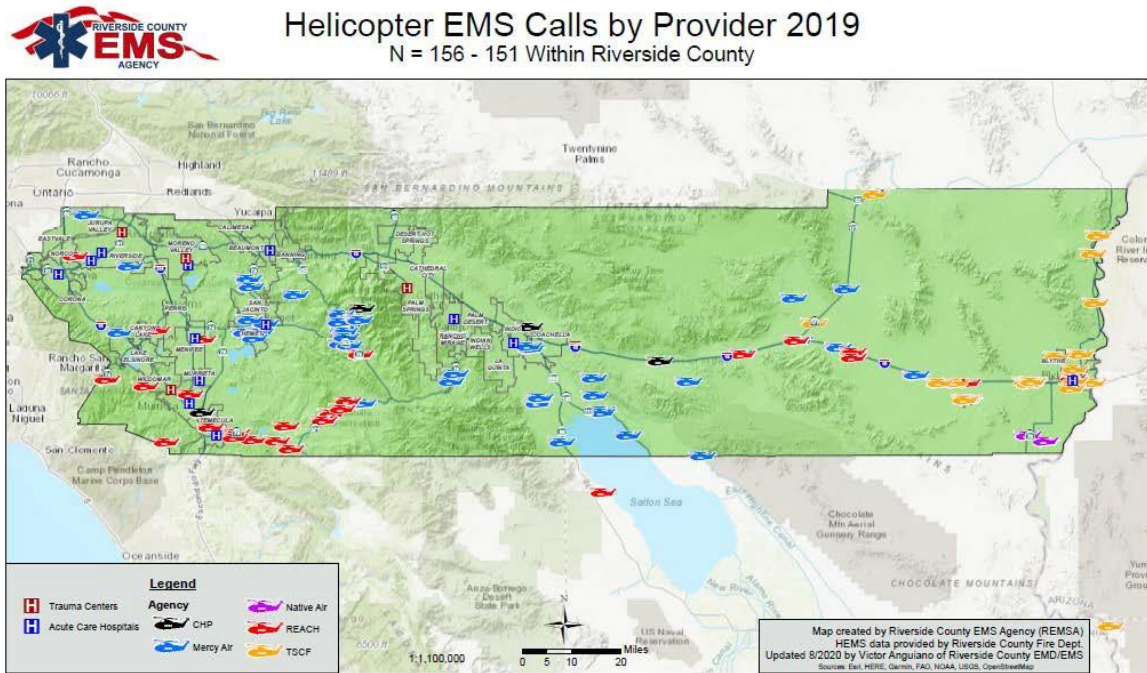


*\*Mechanism of Injury counts not listed above:*

Unknown- 28      Biting- 19      Shotgun- 7      Chemical burn- 5      Other blunt- 4      Electrical Burn- 2  
 Glass- 20      Thermal burn- 11      Other burn mechanism- 6      Inhalation burn- 4      Not applicable- 3

## Helicopter EMS (HEMS)

In 2019, there were 159 HEMS transports. Trauma continues to be the leading cause of HEMS transports with 114 calls. 72% of the total number of cases included Adult trauma, Pediatric trauma and Burn injury. Where transports-via ground ambulance would cause a delay in hospital care and treatment, HEMS is utilized.



### Changes in Trauma System

- American College of Surgeons – Committee on Trauma (ACS-COT) Verifications
- Inter-county Trauma Systems
- Trauma Patient Registry
- Policy Revisions and Additions
- Trauma System Injury Prevention
- System Quality Improvement

### American College of Surgeons- Committee on Trauma (ACS-COT) Verifications

A primary goal of the Riverside County Trauma Care System Plan is for all trauma centers to become ACS-verified by the end of 2020. Currently, there is one (1) newly designated Level I and three Level II-designated trauma centers; three of the four are Level II ACS-verified. ACS verification remains a contractual obligation, and compliance with standards are evaluated during site surveys every three (3) years. Due to COVID-19 activities, verification visits for 2020 have been postponed for one (1) year. Per the College, this currently affects only two (2) of four (4) trauma centers in Riverside County.

- A. Desert Regional Medical Center (DRMC) had a consultation visit April 2017. DRMC's 2020 verification visit has been postponed until 2021 due to COVID-19.
- B. Inland Valley Medical Center (IVMC) maintains ACS Level II verification. A re-verification survey will take place in 2021.

- C. Riverside University Health System - Medical Center (RUHS- MC) maintains ACS Level II Adult verification. RUHS's 2020 Level I verification survey has been postponed until 2021 due to COVID-19.
- D. Riverside Community Hospital (RCH) maintains ACS Level II verification. RCH's verification in November 2021 will be for Level I.

### Inter-county Trauma Systems

REMSA and the Inland Counties Emergency Medical Agency (ICEMA) continue to have inter-county agreements regarding the acceptance of all specialty care patients, including trauma patients. Both counties collaborate in regional activities and meetings to assure that the care delivered is in the best interest of all patients. Any EMS issues identified in association with the transports between the two counties, have multiple layers of review during system committee meetings and are presented at the Trauma Audit Committee (TAC) for adjudication. This agreement continues to be reviewed and updated on an annual basis. (Attachment A: Inter-County agreements). Additionally, REMSA has expanded its relationship with Orange County EMS by participating in their ACS System Consultation as well as working with Orange County Global Medical Center, in Orange County, to capture trauma patients crossing county borders.

### Trauma Patient Registry

Currently, REMSA uses two (2) trauma registries, Digital Innovations *Collector*® (DI CV5) and ImageTrend's (IT) Patient Registry. In 2020/2021, REMSA will be transitioning away from DI CV5 and begin using IT's trauma patient registry exclusively. With this change, REMSA will be able to perform patient-matching of EMS records, allowing outcomes to be shared with prehospital providers. REMSA has, and continues to, collect more data elements in the trauma registry than what is required by the National Trauma Data Bank (NTDB). The data elements will continue to be reviewed and updated on an annual basis to align with NTDB requirements. The NTDB data dictionary is embedded in the registry elements. Additionally, REMSA will be utilizing the IT patient registry to house the patient data from non-trauma centers that receive trauma patients, and for those facilities that line the Orange County/Riverside County border (REMSA policy #9302- *Prehospital Receiving Center Trauma Patient Registry* form can be found here: <http://www.remsa.us/policy/>). Currently, only one (1) of four (4) trauma centers are directly entering data into the IT patient registry.

### Policy Revisions and Additions

All trauma patient treatment policies are routinely updated with current standards of care and vetted through the regional TAC. REMSA works closely with ICEMA to align treatment protocols, as trauma patients are frequently transported across county lines. The discussion surrounding REMSA Policy #5301 (*Trauma Triage Indicators and Destination*) was initiated at the end of 2018, specifically for the Adult penetrating traumatic arrests. The conversation continued into 2019, with policy and education finalized in October 2019 (<http://www.remsa.us/policy/>). All Adult penetrating traumatic arrest incidents were reviewed and reported on for a six (6) month time frame following implementation.

REMSA participated in a Ketamine trial study for pain management in patients 15 years and older with acute traumatic injury, or acute burn injury, and a pain scale score of five (5) or greater. This study took place over the course of four (4) months, was approved for local optional scope of practice and placed into policy September 2018. Results of the Ketamine study were published in August 2020. The article can be found at: <https://www.cureus.com/articles/33489-evaluation-of-safety-and-efficacy-of-prehospital-paramedic-administration-of-sub-dissociative-dose-of-ketamine-in-the-treatment-of-trauma-related-pain-in-adult-civilian-population>.

### Trauma System Injury Prevention

Injury Prevention is now one of the goals REMSA has created for 2021. The Preparedness Division, under the Emergency Management Department (EMD), is working with the Injury Prevention Coordinators at two of the four trauma centers to provide public education with the *Stop the Bleed (STB) Campaign*. The goal, for the public education, is to offer these courses four (4) times per year. The number of times these courses are offered will be evaluated and increased as needed. EMD STB courses were on hold in 2020 due to the COVID-19 pandemic.

Additionally, in using the trauma data and analysis from the trauma registries, REMSA will be partnering with the Department of Public Health Injury Prevention (DOPH-IP) to address and educate the public on identified topics every month. From a system level, the goal is to educate the public about specific injuries that are seen at our trauma centers using the REMSA and EMD websites. With this collaborative effort between the DOPH-IP, hospitals, and stakeholders, REMSA can focus on prevention and education of Riverside County as a whole.

### System Quality Improvement

REMSA continues to monitor and analyze trauma data from both the electronic patient care record and the trauma registries. In 2019, REMSA began tracking, and continues to track, destinations of trauma patients, time intervals, and if base hospital contact was made in traumatic arrest patients. (Attachment B: Traumatic Arrest Report). This report helps drive EMS education and policy changes as it is reviewed and vetted through multiple clinical meetings on a quarterly basis

In October 2019, REMSA made a policy change for penetrating traumatic arrest patients where base hospital contact was no longer needed if a patient presented with specific criteria. These cases were reviewed for six (6) months for appropriateness and timeliness.

### Number and Designation Level of Trauma Centers

Hospital	Trauma Designation Level	Designation/ Verification
DRMC Palm Springs, CA	II	Adult designation
IVMC Wildomar, CA	II	ACS Level II Adult
RCH Riverside, CA	I	ACS Level II Adult
RUHS-MC Moreno Valley, CA	II	Pediatric Trauma Center (PTC) ACS Level II Adults
Arrowhead Regional Medical Center *San Bernardino County	II	ACS Level II Adults, Burn Center ICEMA designated trauma center
Loma Linda University Medical Center and Loma Linda University Children's Hospital *San Bernardino County	I	ACS Level I Adult and Pediatric, ICEMA designated trauma center

**Scheduled changes:** There are no scheduled changes to trauma centers at this time.

**System changes:** Based on trauma center data analysis, and current catchment areas, REMSA does not anticipate the need for any additional trauma centers.

RUHS-MC has expressed interest in becoming a Level I ACS Verified Trauma Center. REMSA is continuing to work with the medical center to achieve this goal.

**Trauma System Goals and Objectives**

REMSA has developed the following goals and objectives for the Trauma System calendar year 2019-2020:

**Goal #1: Collaborate with DOPH-IP services for trauma education**

Objectives to Achieve Goal	Measure (s)	Timeline	Status												
Work with Injury Prevention services on public education	Provide educational materials to the citizens of the county on a monthly basis using trauma system data	2021 <table border="1"> <tr> <td>Jan</td> <td>Feb</td> <td>Mar</td> <td>Apr</td> </tr> <tr> <td>May</td> <td>June</td> <td>July</td> <td>Aug</td> </tr> <tr> <td>Sept</td> <td>Oct</td> <td>Nov</td> <td>Dec</td> </tr> </table>	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Pending
Jan	Feb	Mar	Apr												
May	June	July	Aug												
Sept	Oct	Nov	Dec												

**Goal #2: All trauma centers to upload into IT Patient Registry**

Objectives to Achieve Goal	Measure (s)	Timeline	Status
Upload all trauma data to IT Patient Registry	All four trauma centers to upload NTDB and REMSA data to IT Patient Registry	December 2020	Pending- one facility currently does direct data entry

**Goal #3: System-wide ACS Verification of trauma centers**

Objectives to Achieve Goal	Measure (s)	Timeline	Status
Hospital contracts were updated in 2017 to state they will achieve ACS Verification within contract term ending in 2020.	Provide support to those trauma centers that are not ACS verified. Perform evaluations in line with ACS site visits.	December 2021	As of July 2020, three of the four trauma centers are ACS Level II verified.



**Goal #4 Designate higher level trauma centers within Riverside county**

Objectives to Achieve Goal	Measure (s)	Timeline	Status
Perform trauma center audits based on regulatory requirements	Designate two (2) Level II trauma centers as Level I	July 2021	RCH designated in June 2020.  RUHS- pending designation

**Goal #5: Receive performance improvement plans from all trauma centers**

Objectives to Achieve Goal	Measure (s)	Timeline	Status
Begin requesting annual trauma performance improvement plans from all four (4) trauma centers.	All four Trauma centers will be responsible for sending REMSA an internal trauma performance improvement plan for their individual trauma programs.	June 2021	Pending – on hold due to COVID activities

**Goal #6: Capture data and outcomes on trauma patients arriving at non-trauma centers in and out of Riverside County**

Objectives to Achieve Goal	Measure (s)	Timeline	Status
Send non-trauma centers and out of county hospitals REMSA policy #5303-PRC Trauma patient registry form.	Send out quarterly to: Non-trauma centers x 13 Out of county facilities x 2 Out of state facilities x 1	June 2019 September 2019 February 2020 May 2020 August 2020 November 2020	Complete Complete Complete Complete Complete Pending

**Goal #7: Publish Trauma Report**

<b>Objectives to Achieve Goal</b>	<b>Measure (s)</b>	<b>Timeline</b>	<b>Status</b>
Publish five- year trauma report	Use trauma data from 2015- 2019 to publish countywide report	July 2021	In progress- on hold due to COVID activities

The following identifies the “Pending” goal-completion status’ from recent Trauma Plan Updates.

<u>Trauma System Goals 2013</u>	<u>Goal met (Y/N)</u>	<u>Status as of 2015 update</u>	<u>2016 Trauma Plan update status</u>	<u>2017 Trauma Plan Update status</u>	<u>2018 Trauma Plan Update status</u>
Grow into ACS verification	No	1. IVMC upgraded to a Level II trauma center 2. ACS site visits planned for DRMC, IVMC, and RCH in 2016.	In process. 25% met- RUHS-MC is the only verified Level II trauma center at this time	In progress. One ACS Verified Level II trauma center. Three trauma centers with ACS Verification visits in 2019.	75% complete. Three ACS Level II verified trauma centers. All to be verified by 2020.
<u>Trauma System Goals 2016</u>	<u>Goal met (Y/N)</u>	<u>Status as of 2017 update</u>			
Participate in Regional activities with ICEMA	yes	3.1 Met-implementation of new trauma database		REMSA implemented new registry. One facility does direct data entry	Completed March 2020

**Changes to Implementation Schedule**

No scheduled changes to report

**Other Issues**

No relevant issues currently.



October 15, 2020

Tom Lynch  
Executive Director  
Inland Counties Emergency Medical Services  
Agency 1425 South "D" Street  
San Bernardino, CA 92415-0060

Dear Tom,

Riverside County would like to continue collaborating with San Bernardino County in accepting all specialty care patients (Trauma, Stroke, and STEM!) from the field. Riverside County EMS continues to remain committed to providing optimal patient care and outcomes for all of these patients. Reciprocal acceptance of specialty care patients from the field between both Riverside and San Bernardino Counties continues to be effective and a critical component between both systems.

Thank you for your ongoing partnership between REMSA and ICEMA.

Sincerely,

A handwritten signature in black ink, appearing to read "Trevor Douville", is written over a light blue horizontal line.

Trevor Douville  
Director  
EMS Administrator  
Emergency Management Department



Mailing Address: 4210 Riverwalk Parkway • Suite 300 • Riverside, CA 92505  
Phone: (951) 358-5029 • Fax: (951) 358-5160 • TDD: (951) 358-5124 •



# Inland Counties Emergency Medical Agency

1425 South D Street, San Bernardino, CA 92415-0060 • (909) 388-5823 • Fax (909) 388-5825 • www.icema.net

*Servino San CBernardino, Inyo, antf !M.ono Counties  
'Tom Lyncli, PfMS)laministrator  
'Vaezaziz; !Af.(J), !M.eau:a[ (J)irector*

October 30, 2020

Trevor Douville, Director  
Riverside County Emergency Medical Services Agency  
4210 Riverwalk Parkway, Suite 300  
Riverside, CA 92505

Dear Mr. Douville:

ICEMA would also like to continue collaborating with Riverside County in accepting all specialty care patients (Trauma, Stroke and STEMI) from the field. ICEMA remains committed to providing optimal patient care and outcomes for all of these patients. Reciprocal acceptance of specialty care patients from the field between San Bernardino and Riverside Counties continues to be effective and critical component between both systems.

Thank you for your ongoing partnership between ICEMA and REMSA.

Sincerely,

Tom Lynch  
EMS Administrator

TL/jlm

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## Traumatic Cardiac Arrest- 1/1/2019- 9/30/2020

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

	2019								2020						Average	
	Qtr1		Qtr2		Qtr3		Qtr4		Qtr1		Qtr2		Qtr3			
Total Incidents	112		159		153		147		137		129		175		145	
Average Age	39		40		42		44		39		41		42		41	
Median Age	37		40		40		40		35						38	
0-9	8	7%	14	9%	10	7%	2	1%	7	5%	6	5%	12	7%	8	6%
10-14	1	1%			3	2%	1	1%	1	1%	4	3%	2	1%	2	1%
15-24	10	9%	26	16%	10	7%	16	11%	23	17%	17	13%	14	8%	17	11%
25-34	32	29%	20	13%	35	23%	41	28%	34	25%	38	29%	36	21%	34	23%
35-44	17	15%	27	17%	26	17%	18	12%	26	19%	16	12%	46	26%	25	17%
45-54	19	17%	26	16%	19	12%	22	15%	15	11%	7	5%	17	10%	18	12%
55-64	6	5%	30	19%	24	16%	24	16%	9	7%	12	9%	17	10%	17	12%
65-79	16	14%	13	8%	22	14%	16	11%	8	6%	20	16%	18	10%	16	11%
80+	3	3%	3	2%	4	3%	7	5%	10	7%	9	7%	13	7%	7	5%
Northwest Zone	31	28%	41	26%	40	26%	39	27%	46	34%	40	31%	38	22%	39	27%
Desert Zone	34	30%	32	20%	32	21%	30	20%	18	13%	18	14%	38	22%	29	20%
Southwest Zone	15	13%	29	18%	21	14%	20	14%	19	14%	16	12%	29	17%	21	15%
Central Zone	16	14%	25	16%	29	19%	22	15%	25	18%	27	21%	30	17%	25	17%
San Jacinto Zone	6	5%	18	11%	16	10%	24	16%	20	15%	22	17%	22	13%	18	13%
Pass Zone	7	6%	6	4%	7	5%	5	3%	4	3%	3	2%	7	4%	6	4%
Mountain Plateau Zone	1	1%	4	3%		0%	5	3%	4	3%	1	1%	10	6%	4	3%
Palo Verde Zone	2	2%	3	2%	8	5%	2	1%	1	1%	2	2%	1	1%	3	2%
Blunt only	58	52%	99	62%	73	48%	78	53%	76	55%	82	64%	80	46%	78	54%
Penetrating	21	19%	29	18%	40	26%	36	24%	34	25%	19	15%	46	26%	32	22%
Blunt and penetrating	4	4%	2	1%	3	2%	3	2%	3	2%	3	2%	3	2%	3	2%
Burn					1	1%	1	1%					1	1%	1	1%
Blunt and Burn	2	2%						0%	4	3%			2	1%	3	2%
Other	19	17%	18	11%	25	16%	16	11%	10	7%	13	10%	33	19%	19	13%
Not documented	8	7%	11	7%	11	7%	13	9%	10	7%	12	9%	10	6%	11	7%
Total Incidents documented	28		30		31		29		25		20		25		27	
Sum of Odometer Reading	180		160		168		296		259		172		229		209	
Average of Odometer Reading	6		5		5		10		10		9		9		8	
Max of Odometer Reading	15		14		25		26		26		20		25		22	

	2019								2020						Average	
	Qtr1		Qtr2		Qtr3		Qtr4		Qtr1		Qtr2		Qtr3			
<b>Total Transports Dispo:Treated and Transported by this unit</b>	<b>28</b>		<b>30</b>		<b>31</b>		<b>29</b>		<b>25</b>		<b>20</b>		<b>25</b>		<b>27</b>	
<b>Trauma center</b>	<b>15</b>	<b>54%</b>	<b>17</b>	<b>57%</b>	<b>21</b>	<b>68%</b>	<b>21</b>	<b>72%</b>	<b>17</b>	<b>68%</b>	<b>13</b>	<b>65%</b>	<b>14</b>	<b>56%</b>	<b>17</b>	<b>63%</b>
Riverside Community Hospital	5	18%	7	23%	8	26%	7	24%	2	8%	1	5%	3	12%	5	18%
Riverside University Health System Medical Center	3	11%	4	13%	7	23%	8	28%	6	24%	7	35%	5	20%	6	21%
Desert Regional Medical Center	4	14%	3	10%	3	10%	4	14%	5	20%	1	5%	5	20%	4	13%
Inland Valley Medical Center	3	11%	3	10%	3	10%	2	7%	4	16%	4	20%	1	4%	3	11%
<b>Non-Trauma Center</b>	<b>13</b>	<b>46%</b>	<b>13</b>	<b>43%</b>	<b>10</b>	<b>32%</b>	<b>8</b>	<b>28%</b>	<b>8</b>	<b>32%</b>	<b>7</b>	<b>35%</b>	<b>11</b>	<b>44%</b>	<b>10</b>	<b>37%</b>
Hemet Valley Medical Center	2	7%	2	7%	2	6%	4	14%			3	15%	3	12%	3	10%
JFK - John F Kennedy Memorial Hospital	1	4%	3	10%	1	3%	2	7%			1	5%	1	4%	2	6%
Corona Regional Medical Center	2	7%	2	7%					1	4%	1	5%	2	8%	2	6%
San Geronio Memorial Hospital	3	11%			1	3%			1	4%			1	4%	2	6%
Eisenhower Medical Center	1	4%	3	10%	1	3%	1	3%			1	5%			1	5%
Palo Verde Hospital	2	7%			1	3%					1	5%	1	4%	1	5%
Rancho Springs Medical Center	1	4%	1	3%			1	3%							1	4%
Menifee Valley Medical Center			1	3%	1	3%			1	4%					1	4%
Kaiser Riverside Medical Center					1	3%			1	4%					1	4%
Loma Linda University Medical Center, Murrieta									4	16%			2	8%	3	11%
Temecula Valley Hospital			1	3%	2	6%									2	6%
Parkview Community Hospital Medical Center	1	4%											1	4%	1	4%
	<b>2019</b>								<b>2020</b>						<b>Average</b>	
<b>Base Hospital contact("Yes/No") (itdisposition.007)</b>	<b>Qtr1</b>		<b>Qtr2</b>		<b>Qtr3</b>		<b>Qtr4</b>		<b>Qtr1</b>		<b>Qtr2</b>		<b>Qtr3</b>		<b>Average</b>	
	<b>112</b>		<b>159</b>		<b>153</b>		<b>147</b>		<b>137</b>		<b>129</b>		<b>175</b>		<b>145</b>	
<b>Yes</b>	<b>29</b>	<b>26%</b>	<b>46</b>	<b>29%</b>	<b>42</b>	<b>27%</b>	<b>47</b>	<b>32%</b>	<b>30</b>	<b>22%</b>	<b>27</b>	<b>21%</b>	<b>32</b>	<b>18%</b>	<b>36</b>	<b>25%</b>
First Response	16	14%	24	15%	21	14%	23	16%	19	14%	15	12%	13	7%	19	13%
Ground Transport	13	12%	22	14%	21	14%	24	16%	11	8%	12	9%	19	11%	17	12%
<b>No</b>	<b>83</b>	<b>74%</b>	<b>113</b>	<b>71%</b>	<b>111</b>	<b>73%</b>	<b>100</b>	<b>68%</b>	<b>107</b>	<b>78%</b>	<b>102</b>	<b>79%</b>	<b>143</b>	<b>82%</b>	<b>108</b>	<b>75%</b>
First Response	49	44%	77	48%	73	48%	69	47%	64	47%	72	56%	96	55%	71	49%
Ground Transport	34	30%	36	23%	38	25%	31	21%	43	31%	30	23%	47	27%	37	26%

	2019								2020						Average	
	Qtr1		Qtr2		Qtr3		Qtr4		Qtr1		Qtr2		Qtr3			
<b>Total Transports Dispo:Treated and Transported by this unit</b>	<b>28</b>		<b>30</b>		<b>31</b>		<b>29</b>		<b>25</b>		<b>20</b>		<b>25</b>		<b>27</b>	
<b>Trauma center</b>	<b>15</b>	<b>54%</b>	<b>17</b>	<b>57%</b>	<b>21</b>	<b>68%</b>	<b>21</b>	<b>72%</b>	<b>17</b>	<b>68%</b>	<b>13</b>	<b>65%</b>	<b>14</b>	<b>56%</b>	<b>17</b>	<b>63%</b>
Riverside Community Hospital	5	18%	7	23%	8	26%	7	24%	2	8%	1	5%	3	12%	5	18%
Riverside University Health System Medical Center	3	11%	4	13%	7	23%	8	28%	6	24%	7	35%	5	20%	6	21%
Desert Regional Medical Center	4	14%	3	10%	3	10%	4	14%	5	20%	1	5%	5	20%	4	13%
Inland Valley Medical Center	3	11%	3	10%	3	10%	2	7%	4	16%	4	20%	1	4%	3	11%
<b>Non-Trauma Center</b>	<b>13</b>	<b>46%</b>	<b>13</b>	<b>43%</b>	<b>10</b>	<b>32%</b>	<b>8</b>	<b>28%</b>	<b>8</b>	<b>32%</b>	<b>7</b>	<b>35%</b>	<b>11</b>	<b>44%</b>	<b>10</b>	<b>37%</b>
Hemet Valley Medical Center	2	7%	2	7%	2	6%	4	14%			3	12%	3	12%	3	10%
JFK - John F Kennedy Memorial Hospital	1	4%	3	10%	1	3%	2	7%			1	4%	1	4%	2	6%
Corona Regional Medical Center	2		2	7%					1	4%	1	4%	2	8%	2	6%
San Gorgonio Memorial Hospital	3	11%			1	3%			1	4%			1	4%	2	6%
Eisenhower Medical Center	1		3		1	3%	1	3%			1	4%			1	5%
Palo Verde Hospital	2				1	3%					1	4%	1	4%	1	5%
Rancho Springs Medical Center	1		1				1	3%							1	4%
Menifee Valley Medical Center			1		1	3%			1	4%					1	4%
Kaiser Riverside Medical Center		0%			1	3%			1	4%					1	4%
Loma Linda University Medical Center, Murrieta									4	16%			2	8%	3	11%
Temecula Valley Hospital			1		2	6%									2	6%
Parkview Community Hospital Medical Center	1												1	4%	1	4%
	<b>2019</b>								<b>2020</b>						<b>Average</b>	
<b>Base Hospital contact("Yes/No", Disposition)</b>	<b>112</b>		<b>159</b>		<b>153</b>		<b>147</b>		<b>137</b>		<b>129</b>		<b>175</b>		<b>145</b>	
<b>Yes</b>	<b>29</b>	<b>26%</b>	<b>46</b>	<b>29%</b>	<b>42</b>	<b>27%</b>	<b>47</b>	<b>32%</b>	<b>30</b>	<b>22%</b>	<b>27</b>	<b>21%</b>	<b>32</b>	<b>18%</b>	<b>36</b>	<b>25%</b>
Patient Treated and Transported by this EMS Unit	11	38%	15	33%	19	45%	20	43%	11	37%	10	37%	8	25%	13	37%
Dead at scene	7	24%	19	41%	10	24%	15	32%	7	23%	7	26%	9	9%	11	29%
Patient Treated and Transported with this Crew in Another EMS Unit	10	34%	12	26%	13	31%	9	19%	11	37%	9	33%	6	19%	10	28%
Patient Treated and Care Transferred to Another EMS Unit	1	3%					3	6%	1	3%	1	4%			2	4%
<b>No</b>	<b>83</b>	<b>74%</b>	<b>113</b>	<b>71%</b>	<b>111</b>	<b>73%</b>	<b>100</b>	<b>68%</b>	<b>107</b>	<b>78%</b>	<b>102</b>	<b>79%</b>	<b>143</b>	<b>82%</b>	<b>108</b>	<b>75%</b>
Dead at scene	59	71%	90	80%	84	76%	88	88%	86	80%	86	84%	127	89%	89	82%
Patient Treated and Transported by this EMS Unit	17	20%	15	13%	12	11%	9	9%	14	13%	10	10%	8	6%	12	11%
Patient Treated and Transported with this Crew in Another EMS Unit	7	8%	7	6%	13	12%	3	3%	6	6%	6	6%	6	4%	7	6%
Patient Treated and Care Transferred to Another EMS Unit		0%	1	1%	2	2%		0%	1	1%			2	1%	2	1%

Median Time		2019				2020			
		Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	
Patient contact time (etimes07-etimes03)	First Response	0:08:10	0:07:32	0:07:59	0:08:10	0:07:48	0:08:22	0:08:18	0:08:03
	Ground Transport	0:09:21	0:07:09	0:09:18	0:07:37	0:08:28	0:08:06	0:08:20	0:08:20
	<b>Total</b>	<b>0:08:45</b>	<b>0:07:20</b>	<b>0:08:39</b>	<b>0:07:53</b>	<b>0:08:08</b>	<b>0:08:20</b>	<b>0:08:18</b>	<b>0:08:12</b>
Scene time (etimes09-etimes07)	First Response	0:16:36	0:10:06	0:16:00	0:12:12	0:14:52	0:11:01	0:25:07	0:15:08
	Ground Transport	0:08:19	0:09:03	0:08:52	0:08:34	0:10:06	0:09:16	0:09:11	0:09:03
	<b>Total</b>	<b>0:12:28</b>	<b>0:09:34</b>	<b>0:12:26</b>	<b>0:10:23</b>	<b>0:12:29</b>	<b>0:11:01</b>	<b>0:13:56</b>	<b>0:11:45</b>
Patient contact to transport time (etimes11-etimes07) Dispo= "Patient treated and transported by this unit"	Ground Transport	0:19:11	0:15:04	0:17:30	0:24:10	0:25:56	0:24:59	0:24:28	0:21:37
Patient contact to determination of death (earrest15-etimes07)	<b>First Response</b>								
	Dead at Scene, No Resuscitation, No Transport	0:01:39	0:02:10	0:02:00	0:01:00	0:01:00	0:01:00	0:00:50	0:01:23
	Resuscitation Attempted, Dead at Scene, No Transport		0:20:58	0:20:00	0:18:15	0:16:45	0:11:32	0:20:30	0:18:00
	<b>Ground Transport</b>								
	Dead at Scene, No Resuscitation, No Transport				0:02:13	0:01:32	0:00:40	0:01:57	0:01:35
	Resuscitation Attempted, Dead at Scene, No Transport				0:21:00	0:18:09	0:17:11	0:19:29	0:18:57



Number of Responses		2019				2020		
		Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3
Patient contact time (etimes07-etimes03)	First Response	65	101	94	92	83	85	100
	Ground Transport	47	58	59	55	54	42	66
	<b>Total</b>	<b>112</b>	<b>159</b>	<b>153</b>	<b>147</b>	<b>137</b>	<b>127</b>	<b>166</b>
Scene time (etimes09-etimes07)	First Response	22	23	29	20	22	17	22
	Ground Transport	27	30	32	27	26	21	25
	<b>Total</b>	<b>49</b>	<b>53</b>	<b>61</b>	<b>47</b>	<b>48</b>	<b>38</b>	<b>47</b>
First CPR to Determination of Death (earrest15-earrest19) Disposition :"Res., attempted, Dead at Scene"	First Response	2	7	6	13	5	8	16
	Ground Transport	1	7	3	8	4	4	12
	<b>Total</b>	<b>3</b>	<b>14</b>	<b>9</b>	<b>21</b>	<b>9</b>	<b>12</b>	<b>28</b>
First CPR to Transport (etimes09-earrest19)	Ground Transport	13	14	12	10	12	9	10
Patient contact to transport time (etimes11-etimes07) Dispo= "Patient treated and transported by	Ground Transport	26	28	29	27	24	20	24
Patient contact to determination of death (earrest15-etimes07)	<b>First Response</b>	<b>14</b>	<b>29</b>	<b>28</b>	<b>67</b>	<b>52</b>	<b>60</b>	<b>69</b>
	Dead at Scene, No Resuscitation, No Transport	12	16	18	43	38	41	46
	Resuscitation Attempted, Dead at Scene, No Transport	2	13	10	24	14	19	23
	<b>Ground Transport</b>	<b>3</b>	<b>10</b>	<b>14</b>	<b>27</b>	<b>28</b>	<b>20</b>	<b>35</b>
	Dead at Scene, No Resuscitation, No Transport	1	3	6	14	16	10	16
	Resuscitation Attempted, Dead at Scene, No Transport	2	7	8	13	12	10	19
		<b>17</b>	<b>39</b>	<b>42</b>	<b>94</b>	<b>80</b>	<b>80</b>	<b>104</b>

## References

California Code of Regulations, Title 22. Social Security, Division 9. Prehospital Emergency Medical Services, Chapter 7 Trauma Care System.

[https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I6ECF6AF0D4C011DE8879F88E8B0DAAAE&originationContext=documenttoc&transitionType=Default&contextData=\(sc.Default\)](https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I6ECF6AF0D4C011DE8879F88E8B0DAAAE&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)).

Committee on Trauma, American College of Surgeons. (2014). Resources for Optimal Care of the Injured Patient

Riverside County EMS Agency 2019 Policy Manual. Retrieved from [www.remsa.us/policy/2019](http://www.remsa.us/policy/2019)

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