



**RIVERSIDE COUNTY EMS
MEDICATIONS & PROCEDURES REPORT
2020**

MARCH 19TH, 2021

PREPARED BY RIVERSIDE COUNTY EMS AGENCY, EMERGENCY MANAGEMENT DEPARTMENT

MEDICATIONS & PROCEDURES REPORT

Riverside County Emergency Medical Services (EMS) has a dual response system in which both non-transport units (fire departments) and transport units (ambulance agencies and some fire departments) are dispatched to every 9-1-1 medical emergency. While all paramedics in Riverside County, regardless of agency type, are governed by the same treatment protocols and policies, *Medications* and *Procedures* administered to EMS patients with the same presenting symptoms, can vary. Factors influencing these differences include patient comorbidities, interventions prior to EMS arrival, patient acuity, compliance with treatment, as well as logistical factors such as which agency arrives 'first on scene'. Secondary factors such as field crew dynamics, experience, and differences in documentation practices can also influence how medications and procedures are utilized and documented.

Riverside County EMS Agency (REMSA) Operational Policy [3303](#), also known as the 'Drugs and Equipment List', describes the medications and procedures available to Riverside County EMS field providers for patient evaluation and intervention. This report summarizes the medications given and procedures performed by Riverside County EMS providers over the course of one-year (2020) as documented in the EMS electronic patient care report (ePCR) system.

Methodology

Data

Electronic Patient Care Reports (ePCRs) were extracted from ImageTrend® Elite Report Writer between 1/1/2020 and 12/31/2020. Records for 9-1-1 non-transport and ground transport responses with one or more documented medication or procedure were included in the analysis. Each medication and procedure had to be documented as performed by a Riverside County EMS Agency credentialed provider name and identification number. This resulted in **185,644 unique ePCR records**.

A total of 56 unique medication names were identified and classified into **29 Medication Classifications**. A total of 141 unique procedure names were also extracted and classified under **67 Procedure Categories**. The *Medications Dataset*, where one or more medication/drug was documented in each record, included **88,286 ePCRs** consisting of 40 data fields and 6,804,040 datapoints. The *Procedures Dataset*, where one or more procedure/equipment was documented in each record, included **179,161 ePCRs** consisting of 44 data fields and 18,616,840 datapoints.

To determine the overall proportion of responses where medications and/or procedures were administered, a separate dataset was extracted from the REMSA *2020 Patient Care Continuum Report* dataset to identify all records indicating that patient contact was made. This resulted in a total of 314,797 unique ePCRs for patient contact in 2020 regardless of medications given or procedures performed.

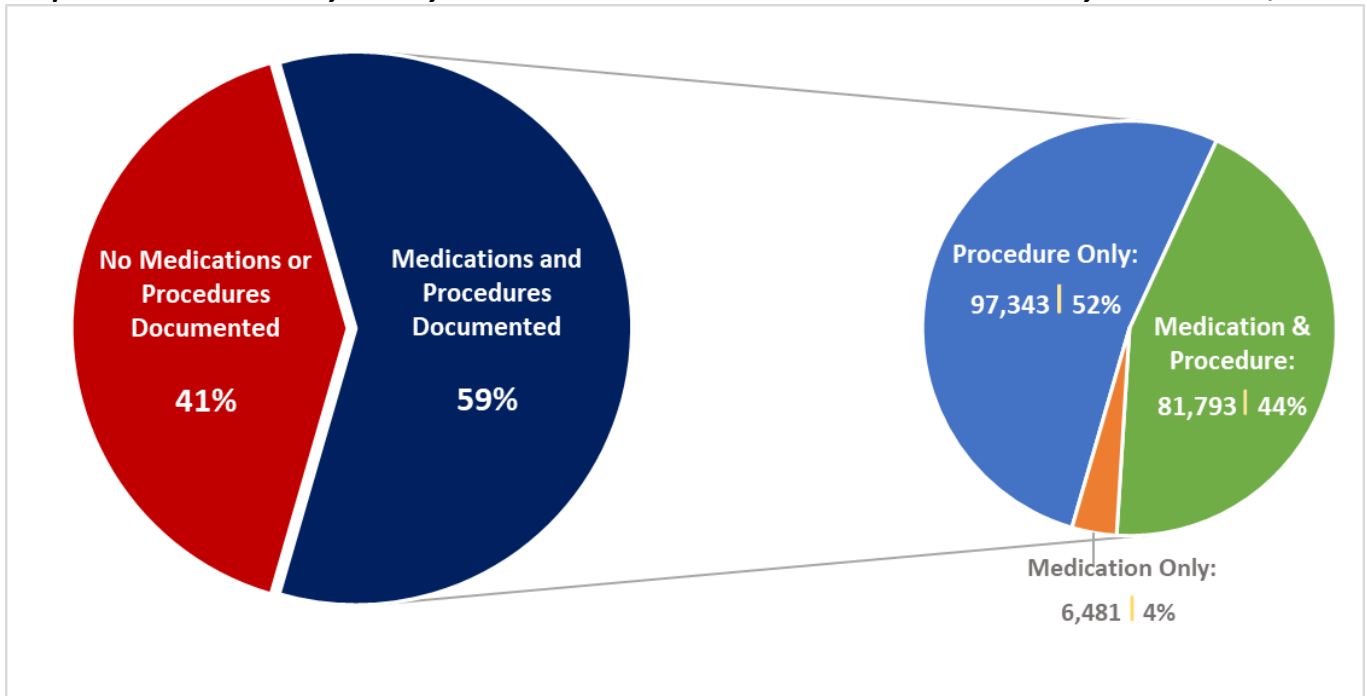
Exclusions

5,060 ePCRs (5.7%) from the Medications Dataset and **4,345 ePCRs (2.4%)** from the Procedures Dataset were excluded from the analysis. Exclusions were due to provider name, provider role, or provider ID being blank, or medication or procedure being documented as performed by "Other". Additional Exclusions were for blank patient dispositions or dispositions indicating no patient contact was made (Canceled Enroute, Canceled Prior to Enroute, Canceled at Scene by Another Unit - No Patient Contact, No Patient Found, Non-Patient Transport, Standby: No Services or Support Provided, Standby: Public Safety, Fire, or EMS Operational Support Provided). No additional exclusions were made when the datasets were combined.

Systemwide Distribution of Medications Given & Procedures Performed

Of **314,797** 9-1-1 response records documenting patient contact was made, **59%** included documentation that a medication and/or procedure was administered (185,644 ePCRs). Graph 1 below illustrates this breakdown between records with and without medications or procedures, along with how often medications and procedures intersected on the same records.

Graph 1. Riverside County EMS System Medications and Procedures documented by record count, 2020



Response Unit Type

Response unit type describes the primary role of the EMS unit responding to the EMS call (eResponse.07 & eResponse.13). Response Unit Type has been categorized into non-transport units (quick response vehicles such as fire engines, fire trucks, and squads) and transport units (ambulances). This allows for a comparison between the number of interventions performed between the non-transport and transport units.

The following two tables (Table 1 and Table 2) provide a breakdown of records by 'Response Unit Type' and 'Riverside County EMS Provider' which indicated medications and/or procedures were administered.

Table 1. Medications by Agency and Unit Type, 2020

Medications	Total Medications	Total ePCRs with Medications	ePCRs with Patient Contact	% of ePCRs with Medications	Average Medications Given
Non-Transport Units	42,436	20,788	140,168	14.8%	2.0
Cathedral City Fire Department	210	73	984	7.4%	2.9
Corona Fire Department	4,034	1,847	6,848	27.0%	2.2
Hemet Fire Department	1,124	548	8,177	6.7%	2.1
Morongo Fire Department	283	133	2,016	6.6%	2.1
Murrieta Fire Department	2,097	1,049	6,387	16.4%	2.0
Palm Springs Fire Department	2,352	1,190	6,710	17.7%	2.0
Pechanga Fire Department	156	97	569	17.0%	1.6
Riverside City Fire Department	6,711	3,473	23,984	14.5%	1.9
Riverside County Fire Department	25,332	12,305	83,164	14.8%	2.1
Soboba Fire Department	137	73	566	12.9%	1.9
Transport Units	109,982	62,438	174,629	35.8%	1.8
AMR - Desert Cities	12,589	7,316	23,849	30.7%	1.7
AMR - Hemet	24,466	13,224	32,547	40.6%	1.9
AMR - Riverside	60,673	35,121	97,070	36.2%	1.7
Cathedral City Fire Department	3,359	1,741	4,321	40.3%	1.9
Idyllwild Fire Protection District	223	118	518	22.8%	1.9
Riverside County Fire Department	8,672	4,918	16,324	30.1%	1.8
Grand Total	152,418	83,226	314,797	26.4%	1.8

Table 2. Procedures by Agency and Unit Type, 2020

Procedures	Procedures Performed	Total ePCRs with Procedures	ePCRs with Patient Contact	% of ePCRs with Procedures	Average Procedures Performed
Non-Transport Units	86,946	45,754	140,168	32.6%	1.9
Calimesa Fire Department	10	8	738	1.1%	1.3
Cathedral City Fire Department	306	190	984	19.3%	1.6
Corona Fire Department	6,752	3,506	6,848	51.2%	1.9
Hemet Fire Department	978	594	8,177	7.3%	1.6
Morongo Fire Department	689	346	2,016	17.2%	2.0
Murrieta Fire Department	6,465	3,572	6,387	55.9%	1.8
Palm Springs Fire Department	4,574	2,432	6,710	36.2%	1.9
Pechanga Fire Department	147	119	569	20.9%	1.2
Riverside City Fire Department	19,195	9,744	23,984	40.6%	2.0
Riverside County Fire Department	47,604	25,116	83,164	30.2%	1.9
Soboba Fire Department	226	127	566	22.4%	1.8
Transport Units	304,170	129,062	174,629	73.9%	2.4
AMR - Desert Cities	37,823	17,786	23,849	74.6%	2.1
AMR - Hemet	67,190	27,145	32,547	83.4%	2.5
AMR - Riverside	178,980	73,687	97,070	75.9%	2.4
Cathedral City Fire Department	4,354	2,565	4,321	59.4%	1.7
Idyllwild Fire Protection District	414	122	518	23.6%	3.4
Riverside County Fire Department	15,409	7,757	16,324	47.5%	2.0
Grand Total	391,116	174,816	314,797	55.5%	2.2

Top Medications & Procedures

Table 3 and Table 4 below illustrate which medications and procedures are most used by EMS based on the frequency they appeared in the patient records (ePCRs). To be included in this list, the medication or procedure had to appear in a minimum of 1% of patient records in the corresponding dataset. *Sixteen out of 29 Medication classifications, and 15 of 67 Procedure classifications met this threshold for inclusion.*

A complete alphabetical list of medications and procedures is available in Tables 5 and 6 at the end of this report.

Table 3. Top Medications, 2020

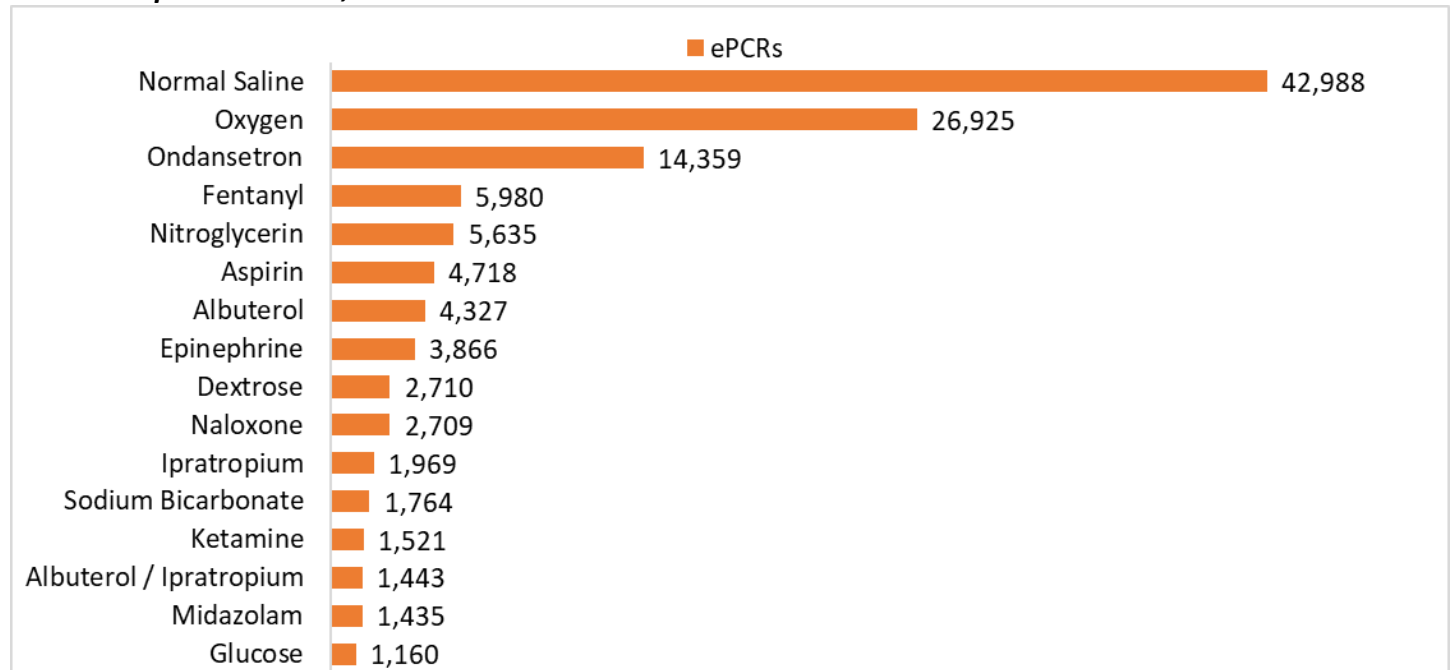
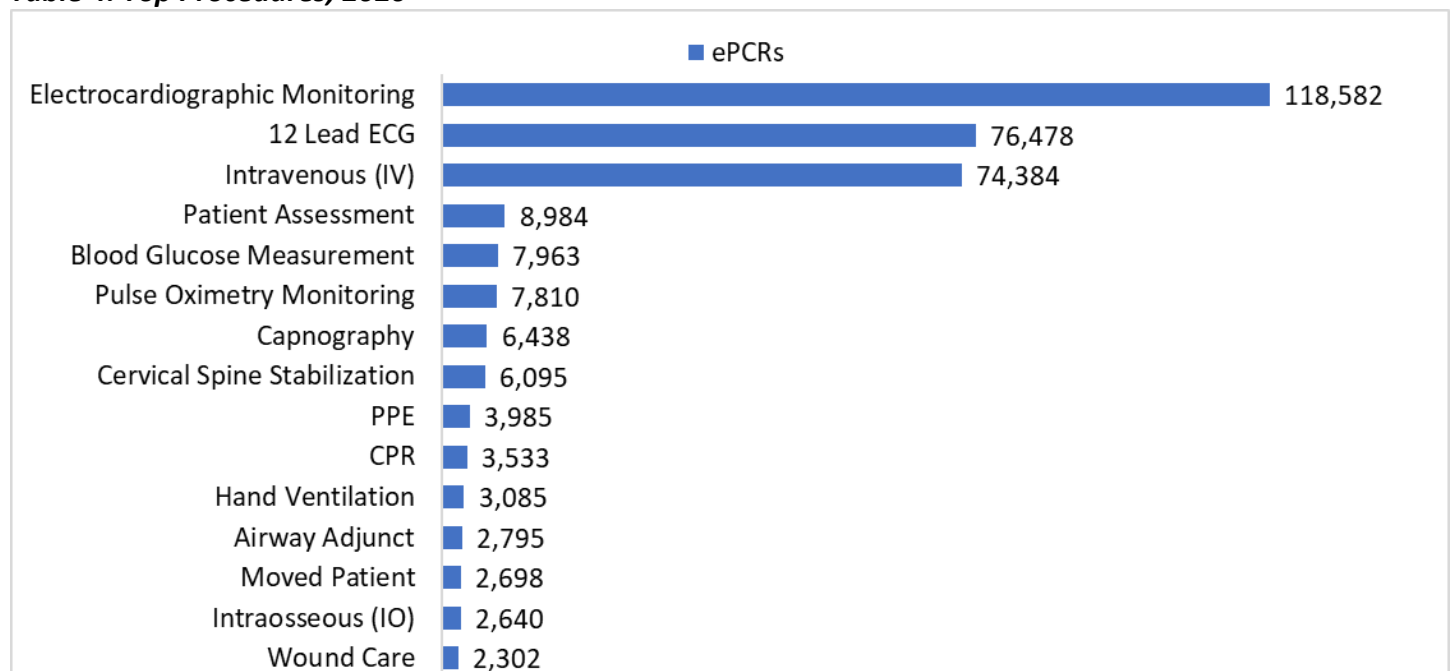


Table 4. Top Procedures, 2020



Medications & Procedures Summary of Findings, 2020

- In 2020, **nearly 60%** of all Riverside County EMS system patient encounters resulted in administration of **at least one medication or procedure**.
- The Riverside County EMS system documented administering **29 medication classifications across approximately 88,000 ePCR records**. A total of **141 unique procedures** grouped into 67 categories were also identified **across nearly 180,000 ePCR records**.
- This results in an average of 1.8 medications and 2.2 procedures administered per patient record. (These averages exclude ePCRs where no medication or procedure was performed as well as ePCRs with a canceled or no patient contact disposition).
- While procedures were performed in the absence of a medication given in nearly half of the records evaluated, most medications were accompanied by at least one documented procedure.
- The impact of the COVID-19 pandemic on medication and procedure usage by EMS is not yet known; however, atypical patterns may emerge as data prior to, and after, the pandemic response is analyzed.
- The tables below provide a full breakdown of Medications (Table 5) and Procedures (Table 6) administered within the Riverside County EMS patient care record system in 2020.

Table 5. Medications Administered, 2020

The following is a complete list of EMS medications documented in 2020, in alphabetical order. "Count" refers to the number of times a medication was given, or a procedure was performed. "ePCRs" refers to the number of patient contact ePCRs where the medication or procedure appears in. "ePCR Percentage" is the relative rate of ePCRs the medication or procedure is documented in and is based on medication ePCRs or Procedure ePCRs. ***The sum of "% of ePCRs" will add up to more than 100% due to multiple medications or procedures being documented in an ePCR***

Medications	Medication Count	Medication ePCRs	Medication ePCR Percentage
Activated Charcoal	338	329	0.4%
Activated Charcoal (272)	338	329	0.4%
Adenosine	407	368	0.4%
Adenosine (Adenocard) (296)	407	368	0.4%
Albuterol	5,048	4,327	5.2%
Albuterol (Proventil) (435)	5,020	4,309	5.2%
Albuterol (Proventil) Inhaler (90 mg / Metered Dose) (745682)	28	27	0.0%
Albuterol / Ipratropium	1,447	1,443	1.7%
Albuterol / Ipratropium (Combivent, Duoneb) (214199)	1,447	1,443	1.7%
Amiodarone	601	426	0.5%
Amiodarone (Cordarone) (703)	601	426	0.5%
Aspirin	4,725	4,718	5.7%
Aspirin (1191)	4,725	4,718	5.7%
Atropine	377	280	0.3%
Atropine (1223)	377	280	0.3%
Atropine/Pralidoxime	3	3	0.0%
Atropine/Pralidoxime (Duodote) Auto-Injector (2.1 mg/600 mg)(809819)	1	1	0.0%
Atropine/Pralidoxime (Mark-I) Auto-Injector (2 mg/600 mg)(727414)	2	2	0.0%
Calcium Chloride	172	167	0.2%
10 mL Calcium Chloride 10 % Prefilled Syringe (828527)	2	2	0.0%
Calcium Chloride (1901)	157	152	0.2%
Calcium Chloride 10 % 10 mL Prefilled Syringe (828527)	13	13	0.0%
Dextrose	2,744	2,710	3.3%
Dextrose 10% Half Normal Saline (244098)	3	3	0.0%
Dextrose 10% Normal Saline (244099)	1,694	1,673	2.0%
Dextrose 10% Water (237648)	945	938	1.1%
Dextrose 25% Water (260258)	39	38	0.0%
Dextrose 5% Quarter Normal Saline (630800)	5	5	0.0%
Dextrose 50% Water (237653)	58	58	0.1%
Diphenhydramine	754	735	0.9%
Diphenhydramine (Benadryl) (3498)	754	735	0.9%
Epinephrine	9,933	3,866	4.6%
Epinephrine (3992)	41	16	0.0%
Epinephrine (Epipen) Auto-Injector (0.15 mg) (727386)	8	5	0.0%
Epinephrine (Epipen) Auto-Injector (0.3 mg) (727347)	9	7	0.0%
Epinephrine 1:1,000 (1 mg/mL) (328316)	444	319	0.4%
Epinephrine 1:10,000 (0.1 mg/mL) (317361)	8,559	3,211	3.9%
Epinephrine 1:100,000 (Push Dose Epi) (330545)	872	504	0.6%
Fentanyl	9,364	5,980	7.2%

Fentanyl (Sublimaze) (4337)	9,364	5,980	7.2%
Glucagon	484	476	0.6%
Glucagon (4832)	480	472	0.6%
Glucagon Auto-Injector (791870)	4	4	0.0%
Glucose	1,232	1,160	1.4%
Glucose (4850)	1,232	1,160	1.4%
Ipratropium	1,982	1,969	2.4%
Ipratropium (Atrovent) (7213)	1,982	1,969	2.4%
Ketamine	1,873	1,521	1.8%
Ketamine (6130)	1,822	1,472	1.8%
Ketamine 10 mg/mL (330467)	51	49	0.1%
Lidocaine	91	91	0.1%
Lidocaine (Xylocaine) (6387)	87	87	0.1%
Lidocaine 2 % Injectable Solution (317567)	4	4	0.0%
Magnesium Sulfate	78	70	0.1%
Magnesium Sulfate (6585)	78	70	0.1%
Midazolam	1,722	1,435	1.7%
Midazolam (Versed) (6960)	1,722	1,435	1.7%
Morphine	57	37	0.0%
Morphine (7052)	57	37	0.0%
Naloxone	5,901	2,709	3.3%
Naloxone (Narcan) (7242)	5,553	2,546	3.1%
Naloxone (Narcan) Auto-Injector (727348)	341	168	0.2%
Naloxone Nasal Spray [Narcan] (1725061)	1	1	0.0%
Narcan (Cares) (197117)	6	6	0.0%
Nitroglycerin	9,172	5,635	6.8%
Nitroglycerin (0.4 mg) (316365)	6,581	4,850	5.8%
Nitroglycerin (4917)	679	513	0.6%
Nitroglycerin Paste 2% (242946)	1,912	1,900	2.3%
Normal Saline	47,415	42,988	51.7%
Normal Saline (125464)	1,629	1,401	1.7%
Normal Saline (313002)	45,785	41,622	50.0%
Quarter Normal Saline (1301606)	1	1	0.0%
Ondansetron	15,606	14,359	17.3%
Ondansetron (Ondansetron Hydrochloride) 4mg Oral Tablet (104894)	97	96	0.1%
Ondansetron (Zofran) (26225)	15,509	14,269	17.1%
Oxygen	28,914	26,925	32.4%
Oxygen (7806)	28,914	26,925	32.4%
Sodium Bicarbonate	1,815	1,764	2.1%
Sodium Bicarbonate (Cares) (36676)	103	100	0.1%
Sodium Bicarbonate 7.5% (316687)	2	2	0.0%
Sodium Bicarbonate 8.4% (237363)	1,710	1,666	2.0%
Sterile Water	3	3	0.0%
Sterile Water (107129)	3	3	0.0%
Tranexamic Acid	160	160	0.2%
Tranexamic Acid (TXA, Lysteda) (10691)	160	160	0.2%
Grand Total	152,418	83,226	

Table 6. Procedures Performed, 2020

The following is a complete list of EMS procedures documented in 2020, in alphabetical order. “Count” refers to the number of times a medication was given, or a procedure was performed. “ePCRs” refers to the number of patient contact ePCRs where the medication or procedure appears in. “ePCR Percentage” is the relative rate of ePCRs the medication or procedure is documented in and is based on medication ePCRs or Procedure ePCRs. ***The sum of “% of ePCRs” will add up to more than 100% due to multiple medications or procedures being documented in an ePCR***

Procedures	Procedure Count	Procedure ePCRs	Procedure ePCR Percentage
12 Lead ECG	111,509	76,478	43.7%
12 Lead ECG (268400002)	111,409	76,447	43.7%
ECG Transmission (422952004)	100	98	0.1%
Active External Cooling	226	207	0.1%
Active External Cooling (431774007)	226	207	0.1%
Active External Warming	102	102	0.1%
Active External Warming (431949004)	102	102	0.1%
Airway Adjunct	2,876	2,795	1.6%
Nasopharyngeal Airway (182692007)	1,109	1,096	0.6%
Oropharyngeal Airway (7443007)	1,767	1,753	1.0%
Airway Opened	187	186	0.1%
Airway Opened (232664002)	187	186	0.1%
Airway Suctioning	1,088	924	0.5%
Airway Suctioned (230040009)	967	852	0.5%
Irrigate And Suction Endotracheal Tube (443533003)	7	7	0.0%
Suction Endotracheal Tube (225715000)	73	68	0.0%
Suction Newborn (18540005)	9	9	0.0%
Vomit Removed From Airway (225713007)	32	26	0.0%
Ambulance Requested	3	3	0.0%
Ambulance Requested (185406000)	3	3	0.0%
Assess Airway Device Cuff Pressure	2	2	0.0%
Assess Airway Device Cuff Pressure (448464001)	2	2	0.0%
Assist with Toileting	5	5	0.0%
Assist With Toileting (313420001)	5	5	0.0%
Bleeding Control	867	787	0.5%
Direct Pressure For Bleeding (447686008)	417	402	0.2%
Hemostatic Agent Applied (Quikclot Or Other Dressing) (713147009)	20	19	0.0%
Pressure Dressing For Bleeding (26906007)	329	321	0.2%
Pressure To Artery For Bleeding (233419004)	7	7	0.0%
Tourniquet For Bleeding (20655006)	94	91	0.1%
Blood Glucose Measurement	8,318	7,963	4.6%
Finger-Prick (278450005)	5,337	5,200	3.0%
Glucose Measurement, Blood (33747003)	2,977	2,763	1.6%
Glucose Measurement, Post Glucose Dose (104690002)	4	4	0.0%
Burn Care	51	39	0.0%
Burn Care (133901003)	19	16	0.0%
Burn Dressing Applied (90660004)	32	25	0.0%

Capnography	6,815	6,438	3.7%
EtCO2 Colorimetric Detection (428482009)	37	37	0.0%
EtCO2 Digital Capnography (425543005)	6,778	6,407	3.7%
Cardiac Pacing	240	129	0.1%
Cardiac Pacing (18590009)	240	129	0.1%
Cardioversion	58	45	0.0%
Cardioversion (250980009)	58	45	0.0%
Central Pulses Present	162	140	0.1%
Central Pulses Present (ROSC) (425598000)	162	140	0.1%
Cervical Spine Stabilization	6,497	6,095	3.5%
Cervical Collar Applied (49689007)	5,549	5,543	3.2%
Cervical Spine Stabilization (398041008)	592	588	0.3%
Manual Cervical Spine Stabilization (449199004)	356	353	0.2%
Childbirth	18	18	0.0%
Childbirth (236973005)	18	18	0.0%
Comfort Measures	1,106	1,090	0.6%
Comfort Care Management (385897008)	16	16	0.0%
Comfort Measures (133918004)	795	794	0.5%
Position of Comfort (225994009)	293	292	0.2%
Turn Patient In Bed (359962006)	2	2	0.0%
Comfort Survivors	14	14	0.0%
Comfort Survivors (171007003)	14	14	0.0%
CPAP	1,770	1,326	0.8%
CPAP (47545007)	1,341	1,275	0.7%
CPAP Titration (446573003)	429	275	0.2%
CPR	4,102	3,533	2.0%
Manual CPR (89666000)	3,555	3,274	1.9%
Mechanical Device CPR (429283006)	547	529	0.3%
Decontamination	29	28	0.0%
Decontamination (409530006)	29	28	0.0%
Defibrillation	1,861	719	0.4%
Defibrillation (426220008)	1,861	719	0.4%
Electrocardiographic Monitoring	120,459	118,582	67.8%
3 Lead ECG (428803005)	4,159	4,148	2.4%
Cardiac Monitor Surveillance (88140007)	1,151	1,150	0.7%
Electrocardiographic Monitoring (46825001)	115,149	114,231	65.3%
Endotracheal Tube	369	301	0.2%
Check Endotracheal Tube For Security (225717008)	9	9	0.0%
Check Endotracheal Tube Position By Auscultation (432028000)	66	61	0.0%
Remove Endotracheal Tube (271280005)	35	35	0.0%
Reposition Endotracheal Tube (225716004)	5	5	0.0%
Secure Endotracheal Tube By Hand (429618000)	2	2	0.0%
Secure Endotracheal Tube With Holder (429184008)	250	248	0.1%
Secure Endotracheal Tube With Tape (428626000)	2	2	0.0%
Environmental Management	107	75	0.0%
Environmental Management For Comfort (386284008)	57	57	0.0%
Environmental Management For Safety (385873004)	50	49	0.0%

Extubation of Trachea	2	2	0.0%
Extubation of Trachea (309812005)	2	2	0.0%
Eye Care	83	78	0.0%
Eye Bandaging (225692006)	12	12	0.0%
Eye Irrigation (49999004)	71	67	0.0%
Hand Ventilation	3,115	3,085	1.8%
Hand Ventilation (11140008)	2,946	2,918	1.7%
Hand Ventilation by Bag Valve Mask (425447009)	169	167	0.1%
Heimlich Maneuver	6	6	0.0%
Heimlich Maneuver (Airway) (23690002)	6	6	0.0%
Ice Pack	637	626	0.4%
Chemically-Activated Ice Pack Treatment (229583009)	13	13	0.0%
Cold/Ice Pack Treatment (229585002)	624	613	0.4%
Intraosseous (IO)	2,712	2,640	1.5%
Intraosseous (IO) (430824005)	2,694	2,629	1.5%
Monitoring Of Intraosseous (IO) Access (708010003)	18	18	0.0%
Intravenous (IV)	78,881	74,384	42.5%
Blood Draw For Labs (82078001)	257	257	0.1%
Conversion Of Intravenous Infusion To Saline Lock (425074000)	1	1	0.0%
Intravenous (IV) (392230005)	77,898	73,795	42.2%
Intravenous (IV) Infusion Prior To This Unit's Care (14152002)	170	167	0.1%
IV Catheter Care (410109005)	397	384	0.2%
IV Catheter Removal (424287005)	117	117	0.1%
Venous Puncture (396540005)	41	38	0.0%
Intubation	1,348	1,200	0.7%
Bougie, Device (Physical Object) (26128008)	14	14	0.0%
Cricoid Pressure Applied (241726007)	5	5	0.0%
Intubation Of Existing Tracheostomy Stoma (232685002)	2	2	0.0%
Orotracheal Intubation (232674004)	1,243	1,187	0.7%
Use Of Bougie / Introducer Stylet (397874007)	84	80	0.0%
King Airway	2	2	0.0%
King Airway (426153007)	2	2	0.0%
Laryngoscopy	35	32	0.0%
Flexible Fiberoptic Laryngoscopy (49077009)	2	2	0.0%
Laryngoscopy (28760000)	27	24	0.0%
Laryngoscopy With Foreign Body Removal (19433002)	6	6	0.0%
Lubrication	3	3	0.0%
Lubrication (257883005)	3	3	0.0%
Monitoring of J-tube	4	3	0.0%
Monitoring Of J-Tube (302353008)	4	3	0.0%
Monitoring of Wound Drain	1	1	0.0%
Monitoring Of Wound Drain (710107001)	1	1	0.0%
Mouth-to-Mask/Mouth Ventilation	95	93	0.1%
Mouth-To-Mask/Mouth Ventilation (243180002)	95	93	0.1%
Moved Patient	3,465	2,698	1.5%
Moved Patient (56469005)	3,465	2,698	1.5%
Needle Chest Decompression	93	73	0.0%
Needle Chest Decompression (182705007)	93	73	0.0%

Notify Coroner	89	88	0.1%
Notify Coroner (363049002)	89	88	0.1%
Occlusive Wound Dressing	86	74	0.0%
Occlusive Wound Dressing (22206003)	86	74	0.0%
Orthostatic Vital Signs	611	604	0.3%
Orthostatic Vital Signs (425058005)	611	604	0.3%
Oxygen	161	157	0.1%
Blow By Oxygen Mask (Physical Object) (425478008)	1	1	0.0%
Nonrebreather Oxygen Mask (Physical Object) (427591007)	31	31	0.0%
Oxygen Nasal Cannula (Physical Object) (336623009)	83	82	0.0%
Oxygen Prior To This Unit's Care (57485005)	46	46	0.0%
Patient Assessment	10,164	8,984	5.1%
Continuous Patient Assessment (422618004)	1,362	1,352	0.8%
Initial Patient Assessment (315639002)	8,652	8,648	4.9%
Newborn Continuous Patient Assessment (423589000)	22	16	0.0%
Patient Assessment (Triage) (245581009)	128	128	0.1%
Physical Restraint	2,460	1,630	0.9%
Physical Restraint (386423001)	1,520	1,352	0.8%
Physical Restraint Checked And Maintained (35497000)	940	708	0.4%
Police Requested	23	23	0.0%
Police Requested (184966003)	23	23	0.0%
PPE	4,230	3,985	2.3%
Airborne Precautions (409524006)	579	576	0.3%
Aspiration Precautions (386519006)	3	3	0.0%
Blood And Fluids Precautions (65011002)	88	87	0.0%
Contact Precautions (409529001)	107	105	0.1%
Face Mask/Covering For Patient (465635009)	487	487	0.3%
Isolation (40174006)	21	20	0.0%
Respiratory Secretion Precautions (409525007)	82	82	0.0%
Standard Precautions (409522005)	2,863	2,856	1.6%
Protection of surroundings from individual	1	1	0.0%
Protection Of Surroundings From Individual (18038006)	1	1	0.0%
Psycho-spiritual Comforting	235	228	0.1%
Psycho-Spiritual Comforting (385728004)	235	228	0.1%
Pulse Oximetry Monitoring	7,821	7,810	4.5%
Pulse Oximetry Monitoring (284034009)	7,821	7,810	4.5%
Removal of Foreign Body	12	12	0.0%
Foreign Body Removed From Airway (232707004)	5	5	0.0%
Removal Of Foreign Body (10849003)	6	6	0.0%
Removal Of Foreign Body From Skin (302421003)	1	1	0.0%
Removal of Ring from Finger	13	13	0.0%
Removal Of Ring From Finger (426509009)	13	13	0.0%
Remove Device from Airway	4	4	0.0%
Remove Device From Airway (232708009)	4	4	0.0%
Report	1,448	1,033	0.6%
Report To Nurse (385775004)	1,020	1,018	0.6%
Report To Physician (304562007)	428	425	0.2%

Safety Management	51	51	0.0%
Safety Management (712991000)	51	51	0.0%
Sling	259	252	0.1%
Sling Applied (182558000)	246	245	0.1%
Sling Maintained (81533008)	13	13	0.0%
Splint	1,170	1,136	0.6%
Air Splint Applied (274475000)	326	316	0.2%
Extrication Splint Device (Physical Object) (421925007)	3	3	0.0%
Splint Applied (79321009)	712	700	0.4%
Splint Maintained (10442004)	16	15	0.0%
Vacuum Splint Applied (427996005)	113	111	0.1%
Time of death	58	58	0.0%
Time Of Death (Observable Entity) (398299004)	58	58	0.0%
Tracheostomy Care/Monitoring	4	4	0.0%
Tracheostomy Care/Monitoring (410213006)	4	4	0.0%
Traction	53	49	0.0%
Application Of Skeletal Traction Via The Femur (239656007)	3	3	0.0%
Traction Maintained (48035000)	6	6	0.0%
Traction Splint Applied (302488007)	44	44	0.0%
Unexpected death-Coroner told	19	19	0.0%
Unexpected Death-Coroner Told (Finding) (270115005)	19	19	0.0%
Vagal Maneuver	192	179	0.1%
Vagal Maneuver (128968000)	192	179	0.1%
Wound Care	2,629	2,302	1.3%
Wound Care (225358003)	75	75	0.0%
Wound Dressing (182531007)	2,285	2,116	1.2%
Wound Irrigation (225116006)	269	259	0.1%
Grand Total	391,116	174,816	

For more information, please contact Riverside County EMS Administrator, Trevor Douville tdouville@rivco.org

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