COUNTY OF LOS ANGELES
EMERGENCY MEDICAL SERVICES

PROVIDER AGENCY ADVISORY COMMITTEE

MEETING NOTICE

The Provider Agency Advisory Committee meetings are open to the public. You may address this Committee on any agenda item before or during consideration of that item, and on other items of interest that are not on the agenda, but which are within the subject matter jurisdiction of this Committee.

DATE: February 14, 2024

TIME: 1:00 pm

LOCATION: IN-PERSON MEETING
Cathy Chidester Conference Room [1st Floor Hearing Room]
Los Angeles County EMS Agency
10100 Pioneer Boulevard
Santa Fe Springs, California 90670

AGENDA

1. CALL TO ORDER

2. INTRODUCTIONS / ANNOUNCEMENTS / PRESENTATIONS

- **2.1** 2024 PAAC Commissioners
- **2.2** Committee Membership Changes
- **2.3** 2024 EMS Agency Staff Roster
- **2.4** 2023 EMS Annual Data Report
- **2.5** Continuing Education: Trauma Grand Rounds
- **2.6** 2024 Annual EMSAAC Conference

3. APPROVAL OF MINUTES: December 20, 2023

4. REPORTS AND UPDATES

- **4.1** EMS Update 2024
- **4.2** EmergiPress
- **4.3** ITAC Update
- **4.4** Research Initiatives and Pilot Studies
- **4.5** PediDOSE Trial
  - **4.5.1** Reference No. 1309, Color Code Drug Doses
- **4.6** Pedi-PART
  - **4.6.1** Monitor Files
- **4.7** California Office of Traffic Safety (OTS) Grants
  - **4.7.1** Mobile Protocol Application
  - **4.7.2** Health Data Exchange
- **4.8** Medication Cache
- **4.9** EMS for Children Pediatric Readiness Assessment for Provider Agencies

5. UNFINISHED BUSINESS

Policies for Discussion; No Action Required:

5.1 Reference No. 1307.4, MCG: EMS and Law Enforcement Co-Response
[Policy remains Tabled]

6. NEW BUSINESS

Policies for Discussion; Action Required:

6.1 Reference No. 424, Triage to Alternate Destination Program
6.2 Reference No. XXX, Triage to Alternate Destination (TAD) Paramedic Training Program Requirements
6.3 Reference No. 502, Patient Destination
6.4 Reference No. 606, Documentation

Policies for Discussion; No Action Required:

6.5 9-1-1 Interfacility Transport (IFT) Checklist
6.6 Reference No. 1200.2, Treatment Protocol: Base Contact Requirements
6.7 Reference No. 1212-P, Treatment Protocol: Pediatric Cardiac Dysrhythmia – Bradycardia
6.8 Reference No. 1231-P, Treatment Protocol: Seizure (Pediatric)
6.9 Reference No. 1317.25, Medical Control Guideline: Drug Reference - Midazolam
6.10 Reference No. 1365, Medical Control Guideline: Transcutaneous Pacing
6.11 Reference No. 1370, Medical Control Guideline: Traumatic Hemorrhage Control

7. OPEN DISCUSSION

8. NEXT MEETING: April 17, 2024

9. ADJOURNMENT

County of Los Angeles • Department of Health Services

LOS ANGELES COUNTY EMS AGENCY

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Santa Fe Springs, CA 90670
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E-mail: (first initial) (last name)@dhs.lacounty.gov
Website - http://ems.dhs.lacounty.gov

DIRECTOR'S OFFICE

Director	Richard Tadeo	(562) 378-1610
Administrative Support	Vanessa Gonzalez	(562) 378-1607
Medical Director	Nichole Bosson, M.D.	(562) 378-1600
Assistant Medical Director	Denise Whitfield, M.D.	(562) 378-1602
Director of Education and Innovation	Denise Whitfield, M.D.	(562) 378-1602
EMS Educator and CE Specialist	Vacant	(562) 378-1648
Administrative Assistant	Claudia Del Toro	(562) 378-1609
Chief, Information Technology	Adam Martinez	(562) 378-1628
Administrative Assistant	Olivia Castro	(562) 378-1608

ASSISTANT DIRECTOR

Assistant Director	Jacqueline Rifenburg	(562) 378-1640

Certification & Training Program Approvals		
Chief, Certification & Training Program Approvals	Mark Ferguson	(562) 378-1604
Civilian Investigator	Robert Orozco	(562) 378-1633
EMS Training Program Approval Manager	Jennifer Calderon	(562) 378-1638
EMS Training Program Approval Coordinators:	Sandra Montero	(562) 378-1689
	Andrea Solorio	(562) 378-1690
EMS Personnel Certification Manager	Nicholas Todd	(562) 378-1632
EMS Personnel Certification Specialists:		
Paramedic/MICN Accreditation	Lynne An	(562) 378-1637
EMT Certification	Susan Miller	(562) 378-1635
	Dora Cota	(562) 378-1634

Paramedic Training Institute		
Program Director	Miguel Ortiz-Reyes	(562) 378-1571
Administrative Support	Annette Nassar	(562) 378-1580
Medical Director	Dipesh Patel, M.D.	(562) 378-1576
Training Coordinators	Charmaine Kane	(562) 378-1570
	Hannah Deloria	(562) 378-1574
Paramedic Instructors:	Vacant	(562) 378-1573
	Kelsea Mauerhan	(562) 378-1579
	Mariana Munatones	(562) 378-1578
	Beverly Santiago	(562) 378-1577
	Enrique Ascencio	(562) 378-1572

Administrative Services

EMS Reimbursement Programs/Contracts & Grants/Personnel/Finance

Administrative Services Manager	Adrian Romero	(562) 378-1595
Fiscal Services Manager	Maria Morales	(532) 378-1591
Building/Property Management Liaison	Tamara Butler	(532) 378-1589
Contracts Manager	Angelica Maldonado	(532) 378-1593
Reimbursement Program Coordinator	Vacant	(532) 378-1509
Reimbursement Program Auditor	Jimmy Duarte	(562) 378-1590
Ambulance Overflow Invoice Processing	Sheila Mouton	(562) 378-1501

EMS PROGRAMS

Nursing Director	Christine Clare	(562) 378-1661
EMS Commission Liaison/Administrative Support	Denise Watson	(562) 378-1606

Prehospital Care Operations

Chief, Prehospital Care Operations	David Wells	(562) 378-1677
Prehospital Program Manager	Natalie Greco	(562) 378-1680
Prehospital Program Coordinators		
ALS Public Providers	Gary Watson	(562) 378-1679
ALS Public Providers/EMS Dispatch	Gregory Klein	(562) 378-1685
Ambulance Licensing Manager	Vacant	(562) 378-1674
ALS/SCT Private Providers	Han Na Kang	(562) 378-1684
ALS/SCT Private Providers	Christine Zaiser	(562) 378-1678
ALS/SCT Private Providers	Sam Calderon	(562) 378-1643
Ambulance Program Monitoring Manager	Christopher Rossetti	(562) 378-1688
Contract Program Auditors:	Helain Hence	(562) 378-1693
	Lily Martini	(562) 378-1500
	Gabriela Ramirez	(562) 378-1692
	Vacant	(562) 378-1686
Civilian Investigators:	Kurt Kunkel	(562) 378-1687
	Juan Mejia	(562) 378-1691

Hospital Programs

Chief, Hospital Programs	Ami Boonjaluksa	(562) 378-1596
Trauma Center / Paramedic Base Hospital / Stroke Center		
Hospital Program Manager	Lorrie Perez	(562) 378-1655
Hospital Program Coordinator (Stroke)	Tracy Harada	(562) 378-1653
Hospital Program Coordinator (Base)	Laura Leyman	(562) 378-1654
STEMI Receiving Center		
Hospital Program Manager (STEMI)	Lily Choi	(562) 378-1652
Hospital Program Coordinator (STEMI)	Priscilla Romero	(562) 378-1660
Emergency Department Approved for Pediatrics (EDAP) / Pediatric Medical Center (PMC) / Sexual Assault Response Team (SART)		
Hospital Program Manager (Peds/SART)	Vacant	
Hospital Program Coordinator (Peds/SART)	Karen Rodgers	(562) 378-1659

EMS Data Systems/Research Programs Management

EMS Data Systems/Research Programs Manager	Sara Rasnake	(562) 378-1658
EMS System Quality Improvement	Gerard Waworundeng	(562) 378-1644
EMS Data Coordinators	Aldrin Fontela	(562) 378-1662
	Paula Cho	(562) 378-1651
	Frederick Bottger	(562) 378-1649
Epidemiologist	Shaohua (Sean) Chen	(562) 378-1657
EMS Data Collection Supervisor	Patricia Hollis	(562) 378-1667
EMS Data Entry	Gracia (Linh) Tang	(562) 378-1668
EMS Data Entry	Erica Garcia	(562) 378-1669
ESO Solutions - Technical Support Staff	Eddie Light, Garrett Sarmiento	
	Trauma One Support (866) 766-9471 Option 3, 3, 4	
	LA TEMIS Support (866) 766-9471 Option 3, 3, 5	

DISASTER PROGRAMS

Nursing Director	Roel Amara	(562) 378-1598
Administrative Support	Claudia Del Toro	(562) 378-1609

Disaster Services

Chief, Disaster Services	Kellyn Pak	(562) 378-2462
Administrative Support/DHV	Aracely Campos	(562) 378-2444
Hospital Preparedness Program		
DRC and Surge Coordinator	Essence Wilson	(562) 378-2442
ASC, Home Health, Dialysis and Urgent Care Program Manager	Laurie Lee-Brown	(562) 378-2459
Clinics, LTC and EMS Disaster Workgroup, and EID Program Manager	Nnabuike Nwanonenyi	(562) 378-2460
Disaster Program Manager	Vacant	(562) 378-2457
Grant Compliance/Audits/Communication	Vacant	(562) 378-2456
Business Continuity/Training and Exercises	Darren Verrette	(562) 378-2451

Disaster Response /Emergency Coordination (EC) Program

Chief, Disaster Response and Coordination	Terry Crammer	(562) 378-2445
Mobile Medical System Program Manager/ Chempack Program Manager	Chris Sandoval	(562) 378-2443
EC Nurse Consultant and Educator	Elaine Forsyth	(562) 378-1505
Warehouse Supervisor	Robert Smock	(562) 378-2440
Emergency Coordination Program Manager	Isabel Sanchez	(562) 378-2446
MHOAC Rep/Building Emergency Coordinator	Vacant	(562) 378-2448
MHOAC Alt/Building Emergency Coordinator	Aaron Roman	(562) 378-2449
Regional Disaster Medical & Health Specialist	Jeremy Fahey	(562) 378-2454
Regional Disaster Medical & Health Specialist	Javier De La Cerda	(562) 378-2453
Homeland Security Grant Program	Justin Manntai	(562) 378-2458

Public Health Liaison	Vacant	(562) 378-2450

Medical Alert Center (MAC) / Ambulance Services / Central Dispatch Office

Program Manager	John Quiroz	(562) 378-1512
Administrative Support	Lola Cardenas	(562) 378-1508
MAC Operations Manager	Richard Jurado	(562) 378-1502

QI Coordinator and Educator	Olester Santos	(562) 378-1506
Deputy Administrator, Patient Transportation	Michael Jones	(562) 378-1518
Ambulance Services Operations Manager	Robert Moore	(310) 498-7369
EMS Fleet	David Lee	(562) 378-2446
Central Dispatch Office Manager	Vacant	

EMERGENCY MEDICAL SERVICES AGENCY

DATA FACTS

LOS ANGELES COUNTY EMS SYSTEM REPORT

DECEMBER 1, 2023

ISSUE 12

Message from the Director and Medical Director

We are dedicating this 12th year issue of the EMS System Report to Dr. Marianne Gausche-Hill. Dr. Gausche-Hill served as the EMS Agency Medical Director from 2015-2023 and through her inspirational leadership has left a lasting positive impact on the Los Angeles County EMS System. She is recognized nationwide as an industry leader in the advancement of emergency and pediatric medicine and disaster preparedness.

Richard Tadeo
Director

Dr. Gausche-Hill has over 40 years of dedicated service to the LA County EMS System as the Base Medical Director at Harbor -UCLA Medical Center, the Medical Director for the Paramedic Training Institute, and for the past 8 years, the Medical Director of the EMS Agency. During her tenure at the EMS Agency, Dr. Gausche-Hill was instrumental in leading the efforts for the County to participate in the Cardiac Arrest Registry to Enhance Survival (CARES), which has allowed comprehensive evaluation of the prehospital treatment of patients experiencing cardiac arrest. Data from CARES is a new addition to this year's report.

Dr. Gausche-Hill spearheaded the efforts for all Emergency Departments Approved for Pediatrics and Pediatric Medical Centers to participate in the National Pediatric Readiness Program. This demonstrated that our pediatric emergency departments and medical centers are well prepared to evaluate and treat our pediatric patients, and provides essential tools for their continued growth. She also led efforts to establish our Data Collaboratives for the Specialty Systems of Care, including STEMI and Cardiac Arrest, Stroke, Trauma, and Pediatrics, which paved the way for multiple research and publications regarding system performance. She also served as the President for the American Board of Emergency Medicine.

Prior to her retirement, Dr. Gausche-Hill launched the Pediatric Dose Optimization for Seizures in EMS (PediDOSE) trial to evaluate the optimal dosing of medication to treat pediatric patients with active seizures and laid the groundwork for the Pediatric Prehospital Airway Resuscitation Trial (Pedi-PART), which will determine the best approach to prehospital pediatric airway management.

Dr. Nichole Bosson
Medical Director

Despite her retirement from County service, Dr. Gausche-Hill continues to participate in these research efforts to improve emergency and pediatric care. Her unwavering dedication to the medical care and health of the citizens of Los Angeles County continues in her new roles as the Interim CEO for The Lundquist Institute and serving on the Board of Directors for CARES. We extend our best wishes and a prosperous retirement.

INSIDE THIS ISSUE:

SPECIAL POINTS OF INTEREST:

- **Emergency Severity Index (page 11)**
- **Trauma Mechanism of Injury (page 13)**
- **OHCA Overall Survival (pages 18-22)**
- **Paramedic Base Hospital Contact Volume (page 24)**

2023 System Demographics

69 9-1-1 Receiving Hospitals

- 37 EDAP (Emergency Department Approved for Pediatrics)
- 8 Pediatric Medical Centers
- 7 Pediatric Trauma Centers
- 15 Trauma Centers
- 21 Paramedic Base Hospitals
- 34 STEMI Receiving Centers
- 24 Comprehensive Stroke Centers
- 28 Primary Stroke Centers
- 43 Perinatal Centers
- 40 Hospitals with Neonatal ICU
- 13 SART (Sexual Assault Response Team)
- 13 Disaster Resource Centers

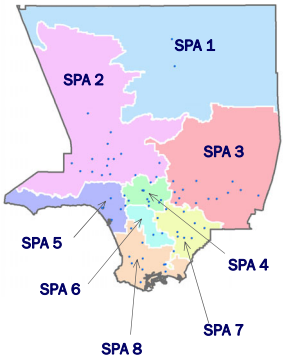
EMS Provider Agencies

- 31 Public Safety EMS Provider Agencies
- 34 Licensed Basic Life Support Ambulance Operators
- 17 Licensed Advanced Life Support Ambulance Operators
- 18 Licensed Critical Care Transport Ambulance Operators
- 5 Licensed Ambulette Operators

EMS Practitioners

- 4,503 Accredited Paramedics
- 8,457 Certified EMTs by LA Co EMS Agency
- 763 Certified Mobile Intensive Care Nurses

ADULT EMS PROVIDER IMPRESSION by Service Planning Area (SPA)



Year	Total Population	SPA1	SPA2	SPA3	SPA4	SPA5	SPA6	SPA7	SPA8
2014	10,069,036	392,730	2,190,391	1,783,041	1,149,691	652,160	1,033,672	1,312,015	1,555,336
2023	9,792,167	413,966	2,154,399	1,720,799	1,090,182	648,902	991,811	1,258,726	1,513,402
%Change	-3%	5%	-2%	-3%	-5%	-0.5%	-4%	-4%	-3%

COUNTYWIDE TOP 10 ADULT EMS PROVIDER IMPRESSIONS	2018		2019		2020		2021		2022	
	No.	%	No.	%	No.	%	No.	%	No.	%
Traumatic Injury	118,549	15%	120,909	15%	102,560	13%	121,487	15%	122,029	16%
Behavioral/Psychiatric	57,027	7%	59,891	7%	58,136	8%	60,619	8%	54,836	7%
Weakness - General	54,752	7%	54,632	7%	53,409	7%	55,368	7%	50,983	7%
No Medical Complaint	47,525	6%	47,142	6%	41,110	5%	35,163	4%	45,399	6%
Body Pain-Non Traumatic	39,563	5%	40,428	5%	36,832	5%	38,506	5%	40,401	5%
Abdominal Pain	38,725	5%	40,365	5%	35,688	5%	41,024	5%	33,466	4%
Respiratory Distress	32,120	4%	32,702	4%	34,205	5%	34,679	4%	31,682	4%
Altered Level of Consciousness	35,373	4%	29,465	4%	24,820	3%	24,544	3%	26,177	3%
Chest Pain - Suspected Cardiac	21,125	3%	21,812	3%	19,320	3%	21,880	3%	22,690	3%
Syncope/Near Syncope	25,396	3%	24,447	3%	18,333	2%	21,125	3%	20,331	3%
Total Adult EMS Responses	791,900		801,661		759,972		787,420		775,516	

	Top 10 Adult EMS Provider Impressions	2018		2019		2020		2021		2022	
		No.	%	No.	%	No.	%	No.	%	No.	%
SPA 1	Traumatic Injury	7,151	14%	9,788	17%	5,932	11%	6,995	13%	4,943	10%
	Body Pain-Non Traumatic	4,085	8%	4,464	8%	3,492	6%	3,462	6%	3,174	6%
	Abdominal Pain	3,235	6%	3,201	6%	2,952	5%	3,169	6%	2,958	6%
	Weakness - General	2,784	5%	2,475	4%	2,952	5%	3,151	6%	2,792	6%
	Behavioral/Psychiatric	4,062	8%	4,007	7%	3,443	6%	3,858	7%	2,727	5%
	Respiratory Distress	1,860	4%	2,179	4%	2,019	4%	2,401	4%	2,041	4%
	Chest Pain - Suspected Cardiac	1,554	3%	1,767	3%	1,428	3%	1,682	3%	1,581	3%
	Cold/Flu	1,175	2%	1,138	2%	1,533	3%	1,357	2%	1,383	3%
	Altered Level of Consciousness	1,857	4%	1,669	3%	1,395	3%	1,518	3%	1,376	3%
	Nausea/Vomiting	1,281	2%	1,586	3%	1,087	2%	1,390	3%	1,200	2%
Total SPA 1 Adult EMS Responses		51,368		56,824		54,767		55,367		50,680	

	EMS Provider Impressions	No.	%	No.	%	No.	%	No.	%	No.	%
SPA 2	Traumatic Injury	18,981	14%	18,247	13%	18,243	14%	21,791	15%	25,593	18%
	Weakness - General	11,077	8%	11,030	8%	11,012	8%	11,707	8%	10,843	8%
	Behavioral/Psychiatric	9,163	7%	9,707	7%	10,249	8%	10,265	7%	9,215	6%
	No Medical Complaint	9,131	7%	9,087	7%	8,109	6%	7,865	6%	8,789	6%
	Abdominal Pain	5,584	4%	5,685	4%	6,350	5%	7,613	5%	7,844	5%
	Respiratory Distress	6,389	5%	6,620	5%	7,040	5%	6,990	5%	6,377	4%
	Body Pain - Non-Traumatic	5,429	4%	5,395	4%	5,154	4%	5,945	4%	6,153	4%
	Syncope/Near Syncope	4,786	4%	5,054	4%	3,867	3%	4,738	3%	4,892	3%
	Chest Pain - Suspected Cardiac	3,939	3%	4,043	3%	3,911	3%	4,482	3%	4,368	3%
	Altered Level of Consciousness	6,493	3%	6,683	5%	4,921	4%	4,710	3%	3,974	3%
Total SPA 2 Adult EMS Responses		135,030		136,833		132,977		141,562		142,691	

	EMS Provider Impressions	No.	%	No.	%	No.	%	No.	%	No.	%
SPA 3	Traumatic Injury	22,151	17%	24,900	19%	18,207	15%	21,730	18%	20,445	17%
	Weakness - General	8,328	6%	7,594	6%	7,531	6%	7,952	6%	7,753	7%
	Behavioral/Psychiatric	9,108	7%	8,975	7%	8,412	7%	8,876	7%	7,116	6%
	Body Pain - Non-Traumatic	7,932	6%	8,008	6%	6,139	5%	5,929	5%	6,237	5%
	Abdominal Pain	6,411	5%	6,124	5%	5,382	4%	5,899	5%	5,891	5%
	Respiratory Distress	5,110	4%	5,461	4%	5,508	4%	5,471	4%	4,514	4%
	No Medical Complaint	7,398	6%	6,999	5%	5,601	5%	5,683	5%	4,466	4%
	Syncope/Near Syncope	4,348	3%	4,465	3%	3,322	3%	3,664	3%	3,749	3%
	Chest Pain - Suspected Cardiac	3,102	2%	3,614	3%	3,198	3%	3,445	3%	3,369	3%
	Altered Level of Consciousness	5,515	4%	4,571	3%	3,960	3%	3,821	3%	2,866	2%
Total SPA 3 Adult EMS Responses		129,597		131,879		123,464		123,688		117,854	

	Top 10 Adult EMS Provider Impressions	2018 No.	%	2019 No.	%	2020 No.	%	2021 No.	%	2022 No.	%
SPA 4	Traumatic Injury	11,649	12%	10,331	11%	10,951	12%	13,366	14%	15,184	15%
	Behavioral/Psychiatric	7,098	7%	7,767	8%	7,800	9%	8,346	9%	7,469	8%
	Weakness - General	7,059	7%	7,373	8%	7,239	8%	7,710	8%	7,270	7%
	No Medical Complaint	6,343	7%	6,604	7%	6,169	7%	5,752	6%	6,048	6%
	Abdominal Pain	3,895	4%	4,515	5%	3,915	4%	4,919	5%	4,780	5%
	Overdose/Poisoning	2,308	2%	2,920	3%	3,315	4%	4,578	5%	4,694	5%
	Body Pain - Non-Traumatic	3,444	4%	4,073	4%	3,954	4%	4,524	5%	5,026	5%
	Respiratory Distress	3,401	4%	3,423	4%	4,399	5%	4,118	4%	4,081	4%
	Altered Level of Consciousness	4,653	5%	3,688	4%	3,275	4%	3,230	3%	2,794	3%
	Seizure	2,835	3%	2,989	3%	2,478	3%	2,473	3%	2,665	3%
Total SPA 4 Adult EMS Responses		95,524		95,477		91,353		97,424		98,954	

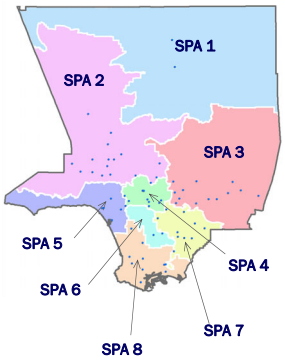
	EMS Provider Impressions	No.	%	No.	%	No.	%	No.	%	No.	%
SPA 5	Traumatic Injury	10,797	18%	9,190	16%	8,179	17%	9,931	19%	10,497	19%
	Behavioral/Psychiatric	3,933	7%	3,981	7%	4,014	8%	4,367	8%	4,114	8%
	No Medical Complaint	4,977	8%	4,074	7%	3,352	7%	3,710	7%	3,876	7%
	Weakness - General	4,185	7%	3,995	7%	3,352	7%	3,710	7%	3,813	7%
	Abdominal Pain	2,011	3%	2,252	4%	1,858	4%	2,280	4%	2,395	4%
	Body Pain - Non-Traumatic	1,698	3%	2,119	4%	1,771	4%	2,104	4%	2,285	4%
	Syncope/Near Syncope	2,582	4%	2,498	4%	1,537	3%	1,860	4%	2,154	4%
	Respiratory Distress	1,945	3%	1,944	3%	1,858	4%	1,961	4%	1,973	4%
	Altered Level of Consciousness	2,493	4%	1,949	3%	1,769	4%	1,683	3%	1,593	3%
	Nausea/Vomiting	1,666	3%	1,684	3%	1,230	3%	1,327	3%	1,416	3%
Total SPA 5 Adult EMS Responses		59,682		56,379		48,224		52,677		54,183	

	EMS Provider Impressions	No.	%	No.	%	No.	%	No.	%	No.	%
SPA 6	Traumatic Injury	14,742	13%	13,758	12%	13,788	12%	15,121	14%	14,501	14%
	Behavioral/Psychiatric	8,089	7%	8,892	8%	9,225	8%	8,737	8%	7,632	7%
	Weakness - General	7,638	7%	8,160	7%	9,046	8%	8,115	7%	7,436	7%
	Abdominal Pain	6,591	6%	7,143	6%	6,378	6%	7,037	6%	6,605	6%
	Body Pain - Non-Traumatic	6,585	6%	6,967	6%	6,462	6%	6,378	6%	6,274	6%
	No Medical Complaint	6,929	6%	6,954	6%	6,803	6%	6,210	6%	5,183	5%
	Respiratory Distress	5,016	4%	5,158	5%	5,550	5%	5,239	5%	4,941	5%
	Seizure	3,695	3%	3,950	4%	3,529	3%	3,437	3%	3,490	3%
	Cold/Flu	3,609	3%	3,707	3%	4,339	4%	3,239	3%	3,481	3%
	Altered Level of Consciousness	4,395	4%	3,346	3%	2,955	3%	2,746	2%	2,518	2%
Total SPA 6 Adult EMS Responses		111,500		111,695		112,044		110,085		105,165	

	EMS Provider Impressions	No.	%	No.	%	No.	%	No.	%	No.	%
SPA 7	Traumatic Injury	13,581	15%	14,608	16%	10,740	13%	12,645	16%	11,043	14%
	Behavioral/Psychiatric	6,458	7%	7,193	8%	6,397	8%	6,412	8%	5,312	7%
	Weakness - General	5,853	7%	5,386	6%	3,340	4%	5,155	6%	5,183	7%
	Body Pain - Non-Traumatic	5,773	7%	6,136	7%	4,519	6%	4,124	5%	4,278	5%
	Abdominal Pain	4,387	5%	4,194	5%	3,566	4%	3,982	5%	4,248	5%
	Respiratory Distress	3,276	4%	3,067	3%	3,071	4%	3,388	4%	2,916	4%
	Chest Pain - Suspected Cardiac	2,463	3%	2,526	3%	2,083	3%	2,313	3%	2,407	3%
	Altered Level of Consciousness	3,654	4%	2,712	3%	2,343	3%	2,411	3%	2,328	3%
	Syncope/Near Syncope	2,664	3%	2,554	3%	2,060	3%	2,111	3%	2,071	3%
	Seizure	2,262	3%	2,382	3%	1,857	2%	1,945	2%	2,071	3%
Total SPA 7 Adult EMS Responses		88,437		89,297		80,058		79,913		77,964	

	EMS Provider Impressions	No.	%	No.	%	No.	%	No.	%	No.	%
SPA 8	Traumatic Injury	19,497	16%	20,087	16%	16,919	14%	19,908	16%	19,823	15%
	Behavioral/Psychiatric	8,841	7%	8,898	7%	8,839	7%	9,758	8%	8,539	7%
	Weakness - General	8,040	7%	8,086	7%	7,696	6%	7,868	6%	7,929	6%
	Body Pain - Non-Traumatic	5,699	5%	6,609	5%	5,532	5%	6,040	5%	6,837	5%
	Abdominal Pain	6,092	5%	6,142	5%	5,433	5%	6,125	5%	6,242	5%
	No Medical Complaint	7,156	6%	6,997	6%	5,871	5%	6,360	5%	5,456	4%
	Respiratory Distress	5,123	4%	4,850	4%	4,903	4%	5,111	4%	4,954	4%
	Altered Level of Consciousness	6,313	5%	4,847	4%	4,275	4%	4,425	3%	4,281	3%
	Syncope/Near Syncope	4,070	3%	3,821	3%	3,010	3%	3,348	3%	3,638	3%
	Chest Pain - Suspected Cardiac	3,385	3%	3,289	3%	2,930	2%	3,369	3%	3,621	3%
Total SPA 8 Adult EMS Responses		120,762		123,277		120,090		126,704		128,025	

PEDIATRIC EMS PROVIDER IMPRESSION by Service Planning Area (SPA)



COUNTYWIDE TOP 10 PEDIATRIC EMS PROVIDER IMPRESSIONS	2018 No.	2018 %	2019 No.	2019 %	2020 No.	2020 %	2021 No.	2021 %	2022 No.	2022 %
Traumatic Injury	8,440	23%	8,641	23%	5,736	22%	6,655	25%	6,719	23%
No Medical Complaint	5,150	14%	4,746	13%	3,155	12%	2,846	11%	5,203	18%
Seizure	4,904	14%	5,609	15%	3,502	14%	3,218	12%	2,408	8%
Behavioral/Psychiatric	1,894	5%	1,709	5%	1,351	5%	1,448	5%	1,816	6%
Respiratory Distress	1,987	6%	2,140	6%	1,015	4%	1,379	5%	1,637	6%
Cold/Flu	1,390	4%	1,453	4%	1,000	4%	1,004	4%	1,368	5%
Fever	1,695	5%	1,751	5%	1,083	4%	861	3%	1,267	4%
Nausea/Vomiting	865	2%	917	2%	570	2%	847	3%	949	3%
Syncope/Near Syncope	956	3%	1,025	3%	564	2%	784	3%	847	3%
Weakness - General	675	2%	886	2%	614	2%	607	2%	746	3%
Total Pediatric Responses	36,117		36,945		25,675		26,984		29,457	

	Top 10 Pediatric EMS Provider Impressions	2018 No.	2018 %	2019 No.	2019 %	2020 No.	2020 %	2021 No.	2021 %	2022 No.	2022 %
SPA 1	Traumatic Injury	699	21%	830	24%	534	22%	555	22%	394	19%
	Seizure	420	13%	475	14%	270	11%	257	10%	466	22%
	Respiratory Distress	197	6%	229	7%	106	4%	155	6%	217	10%
	Cold/Flu	169	5%	141	4%	119	5%	109	4%	115	5%
	Behavioral/Psychiatric	286	9%	245	7%	155	6%	154	6%	103	5%
	Fever	109	3%	119	3%	84	3%	63	3%	73	3%
	Syncope/Near Syncope	64	2%	83	2%	97	4%	57	2%	73	3%
	Choking	42	1%	78	2%	97	4%	87	4%	42	2%
	Nausea/Vomiting	74	2%	72	2%	32	1%	73	3%	41	2%
	No Medical Complaint	531	6%	504	6%	284	4%	243	3%	64	1%
Total SPA 1 Pediatric EMS Responses		3,298		3,457		2,425		2,470		2,118	

	EMS Provider Impressions	No.	%	No.	%	No.	%	No.	%	No.	%
SPA 2	Traumatic Injury	926	23%	1,019	19%	844	21%	1,059	23%	1,261	24%
	Seizure	566	14%	898	17%	620	15%	565	12%	868	17%
	No Medical Complaint	469	12%	688	13%	496	12%	475	10%	381	7%
	Cold/Flu	158	4%	307	6%	170	4%	192	4%	304	6%
	Respiratory Distress	210	5%	348	6%	201	5%	235	5%	300	6%
	Fever	167	4%	282	5%	245	6%	242	5%	300	6%
	Behavioral/Psychiatric	252	6%	241	4%	210	5%	242	5%	266	5%
	Syncope/Near Syncope	150	4%	183	3%	100	2%	178	4%	186	4%
	Allergic Reaction	110	3%	183	3%	139	3%	158	3%	170	3%
	Nausea/Vomiting	84	2%	170	3%	101	2%	163	4%	123	2%
Total SPA 2 Pediatric EMS Responses		3,967		5,385		4,069		4,655		5,221	

	EMS Provider Impressions	No.	%	No.	%	No.	%	No.	%	No.	%
SPA 3	Traumatic Injury	1,611	25%	1,792	28%	961	24%	1,184	28%	1,221	26%
	Seizure	865	13%	911	14%	593	15%	513	12%	788	17%
	No Medical Complaint	936	14%	737	12%	428	10%	353	8%	309	7%
	Respiratory Distress	322	5%	343	5%	122	3%	176	4%	246	5%
	Behavioral/Psychiatric	341	5%	179	3%	206	5%	232	5%	226	5%
	Syncope/Near Syncope	201	3%	203	3%	108	3%	162	4%	163	4%
	Fever	209	3%	225	4%	180	4%	121	3%	149	3%
	Allergic Reaction	161	2%	150	2%	104	3%	110	3%	129	3%
	Choking	130	2%	171	3%	159	4%	175	4%	124	3%
	Nausea/Vomiting	134	2%	133	2%	159	4%	124	3%	124	3%
Total SPA 3 Pediatric EMS Responses		6,516		6,333		4,077		4,253		4,652	

	Top 10 Pediatric EMS Provider Impressions	2018 No.	2018 %	2019 No.	2019 %	2020 No.	2020 %	2021 No.	2021 %	2022 No.	2022 %
SPA 4	Traumatic Injury	503	19%	476	18%	361	19%	459	22%	479	19%
	Seizure	392	15%	471	17%	284	15%	256	12%	406	16%
	No Medical Complaint	399	15%	360	13%	238	13%	285	13%	212	9%
	Cold/Flu	162	6%	148	5%	81	4%	95	4%	158	6%
	Respiratory Distress	147	5%	142	5%	57	3%	111	5%	156	6%
	Fever	152	6%	102	4%	87	5%	67	3%	122	5%
	Behavioral/Psychiatric	111	4%	141	5%	100	5%	106	5%	115	5%
	Allergic Reaction	60	2%	78	3%	66	4%	65	3%	87	4%
	Weakness - General	71	3%	70	3%	43	2%	82	4%	70	3%
	Nausea/Vomiting	70	3%	70	3%	43	2%	74	3%	69	3%
Total SPA 4 Pediatric EMS Responses		2,701		2,705		1,860		2,124		2,472	

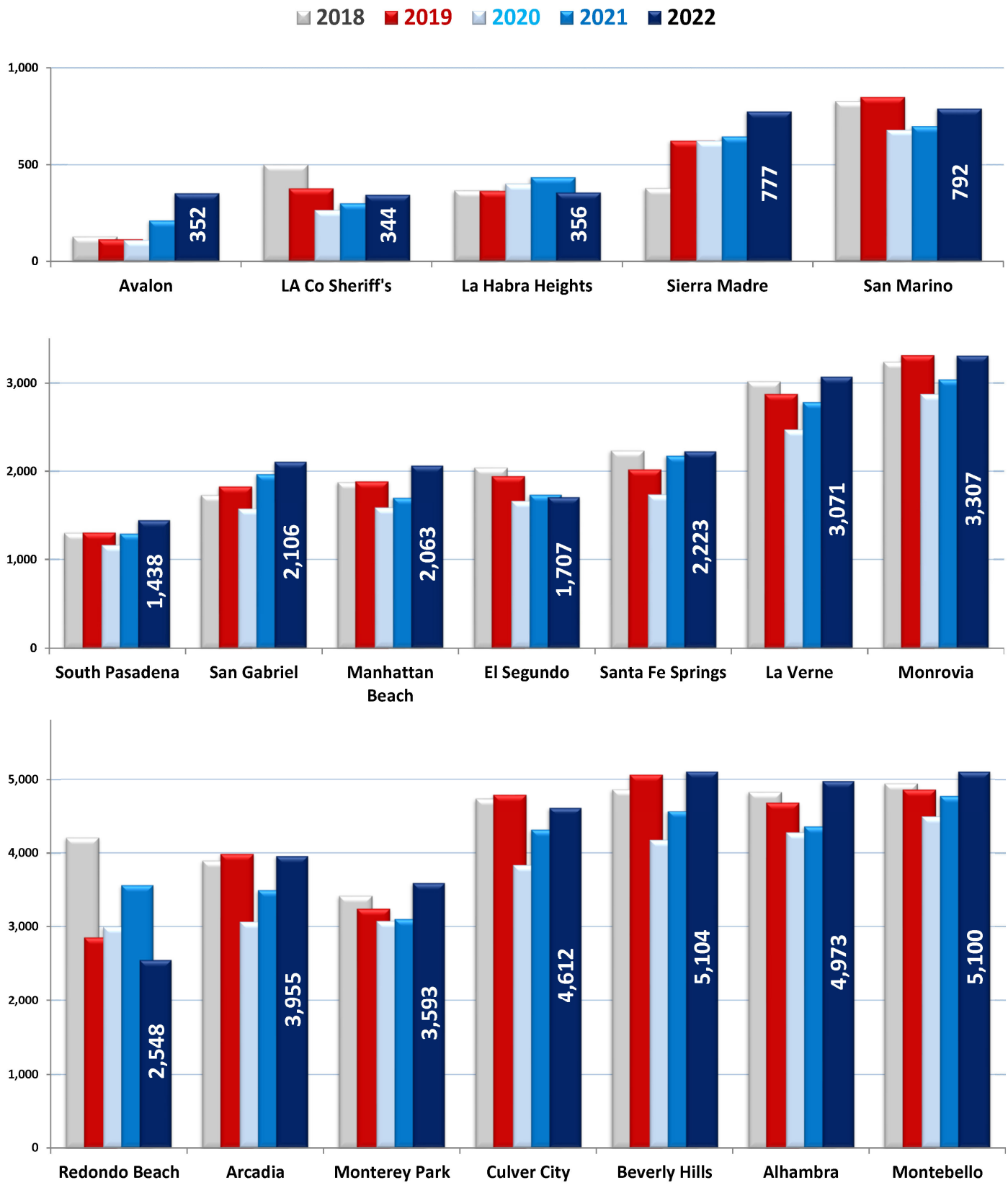
	EMS Provider Impressions	No.	%	No.	%	No.	%	No.	%	No.	%
SPA 5	Traumatic Injury	643	30%	473	24%	356	27%	381	28%	368	25%
	No Medical Complaint	258	12%	209	11%	137	10%	137	10%	131	9%
	Seizure	213	10%	192	10%	134	10%	113	8%	209	14%
	Respiratory Distress	139	6%	93	5%	45	3%	67	5%	93	6%
	Allergic Reaction	102	5%	76	4%	31	2%	68	5%	85	6%
	Cold/Flu	84	4%	79	4%	31	2%	45	3%	83	6%
	Fever	78	4%	47	2%	44	3%	35	3%	81	5%
	Nausea/Vomiting	75	3%	84	4%	32	2%	55	4%	68	5%
	Syncope/Near Syncope	66	3%	74	4%	27	2%	57	4%	66	4%
	Behavioral/Psychiatric	72	3%	61	3%	67	5%	61	4%	49	3%
Total SPA 5 Pediatric EMS Responses		2,175		1,941		1,338		1,360		1,491	

	EMS Provider Impressions	No.	%	No.	%	No.	%	No.	%	No.	%
SPA 6	Traumatic Injury	1,350	20%	1,308	20%	1,014	21%	1,115	23%	1,153	21%
	Seizure	884	13%	1,032	16%	622	13%	582	12%	922	17%
	Cold/Flu	497	7%	510	8%	260	5%	249	5%	524	10%
	No Medical Complaint	1,001	15%	970	15%	734	15%	662	13%	460	8%
	Respiratory Distress	422	6%	400	6%	225	5%	282	6%	361	7%
	Fever	330	5%	328	5%	210	4%	166	3%	274	5%
	Behavior/Psychiatric	296	4%	310	5%	248	5%	287	6%	247	4%
	Nausea/Vomiting	198	3%	172	3%	122	3%	163	3%	168	3%
	Weakness -General	151	2%	192	3%	172	4%	136	3%	156	3%
	Abdominal Pain	119	2%	124	2%	100	2%	95	2%	111	2%
Total SPA 6 Pediatric EMS Responses		6,647		6,649		4,865		4,952		5,491	

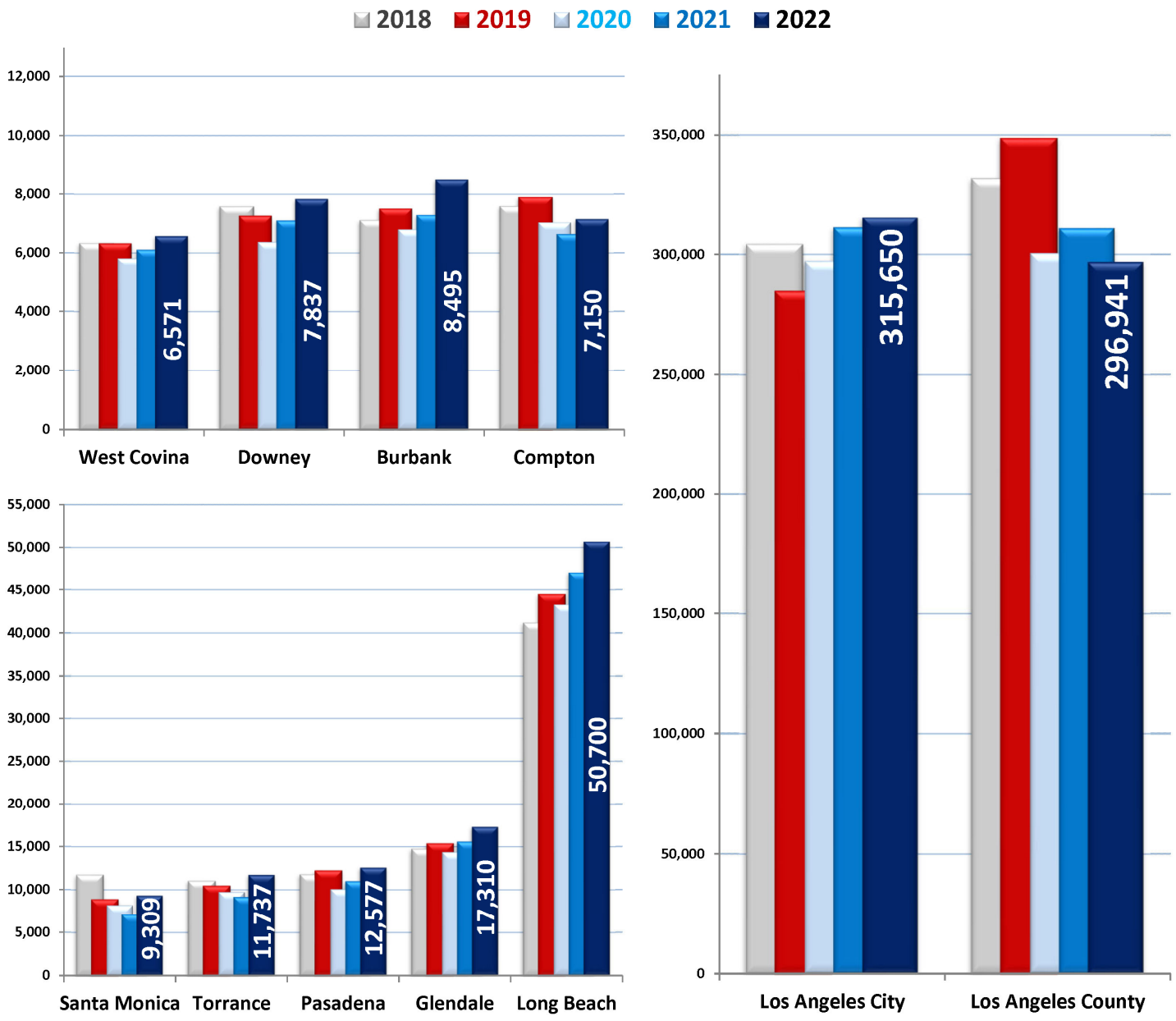
	EMS Provider Impressions	No.	%	No.	%	No.	%	No.	%	No.	%
SPA 7	Seizure	767	15%	801	16%	512	15%	447	14%	761	22%
	Traumatic Injury	1,153	22%	1,256	24%	722	22%	790	25%	720	21%
	Respiratory Distress	226	4%	291	6%	105	3%	152	5%	229	7%
	Cold/Flu	174	3%	195	4%	105	3%	77	2%	160	5%
	Behavioral/Psychiatric	256	5%	284	6%	186	6%	148	5%	156	5%
	Fever	171	3%	185	4%	112	3%	64	2%	138	4%
	No Medical Complaint	817	16%	670	13%	369	11%	277	9%	132	4%
	Syncope/Near Syncope	178	3%	160	3%	88	3%	80	3%	125	4%
	Overdose/Poisoning	73	1%	90	2%	89	2%	72	2%	89	3%
	Choking	91	2%	143	3%	136	4%	139	4%	87	3%
Total SPA 7 Pediatric EMS Responses		5,150		5,152		3,339		3,126		3,424	

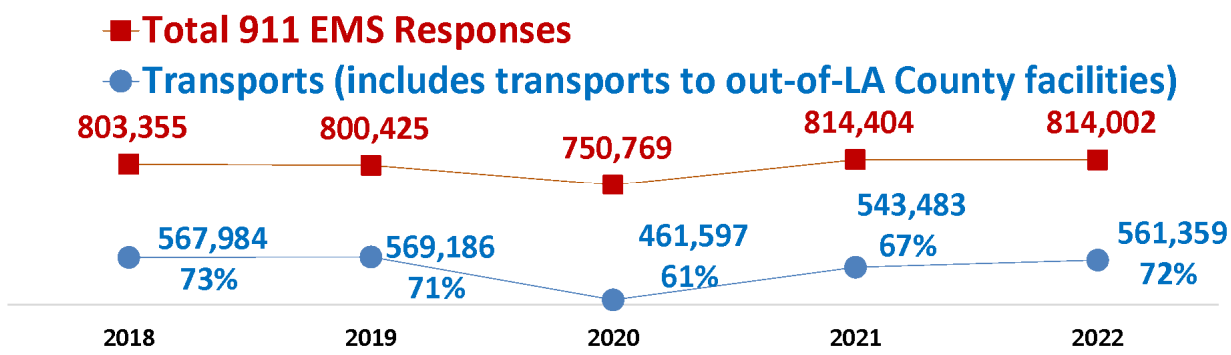
	EMS Provider Impressions	No.	%	No.	%	No.	%	No.	%	No.	%
SPA 8	Traumatic Injury	1,555	27%	1,487	28%	976	25%	1,112	27%	1,082	24%
	Seizure	797	14%	829	16%	501	13%	485	12%	902	20%
	Respiratory Distress	324	6%	294	6%	166	4%	201	5%	327	7%
	No Medical Complaint	739	13%	608	11%	488	13%	414	10%	280	6%
	Cold/Flu	197	3%	230	4%	131	3%	148	4%	250	5%
	Behavioral/Psychiatric	280	5%	248	5%	190	5%	218	5%	215	5%
	Fever	183	3%	168	3%	128	3%	103	3%	204	4%
	Syncope/Near Syncope	152	3%	138	3%	96	2%	117	3%	144	3%
	Choking	134	2%	124	2%	161	4%	160	4%	131	3%
	Allergic Reaction	122	2%	134	3%	86	2%	119	3%	119	3%
Total SPA 8 Pediatric EMS Responses		5,663		5,323		3,883		4,044		4,588	

EMS Responses by 9-1-1 Jurisdictional Provider Agency



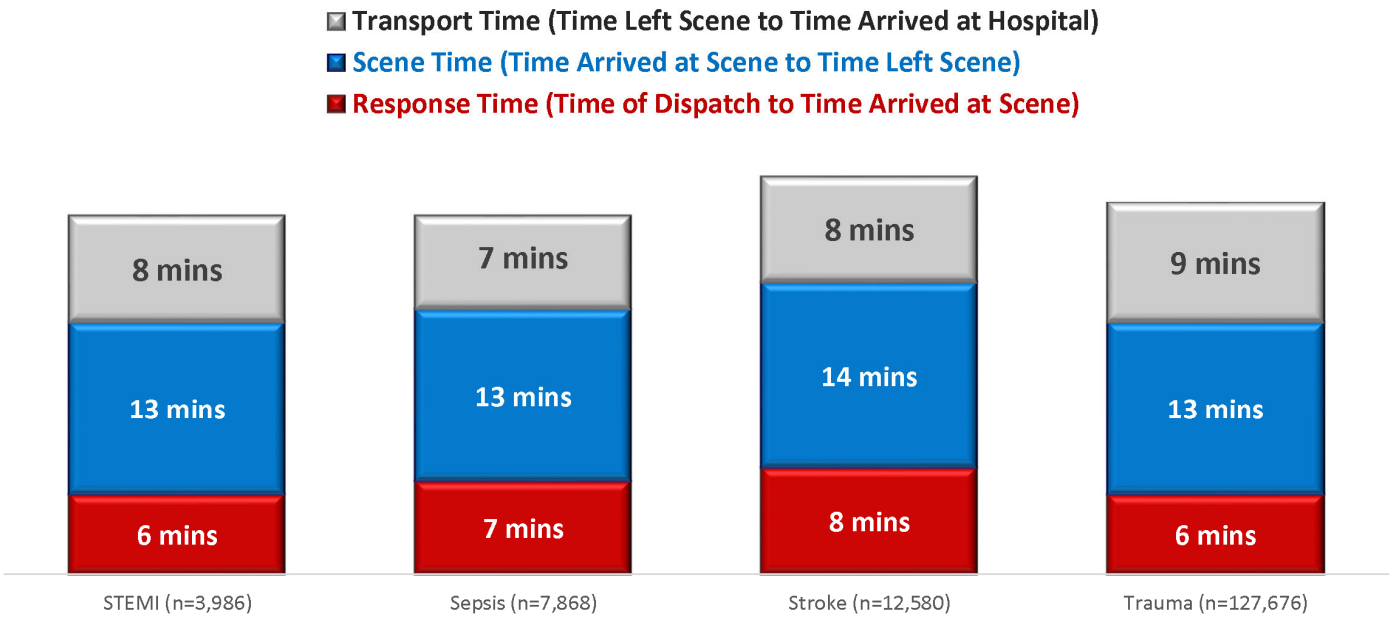
EMS Responses by 9-1-1 Jurisdictional Provider Agency



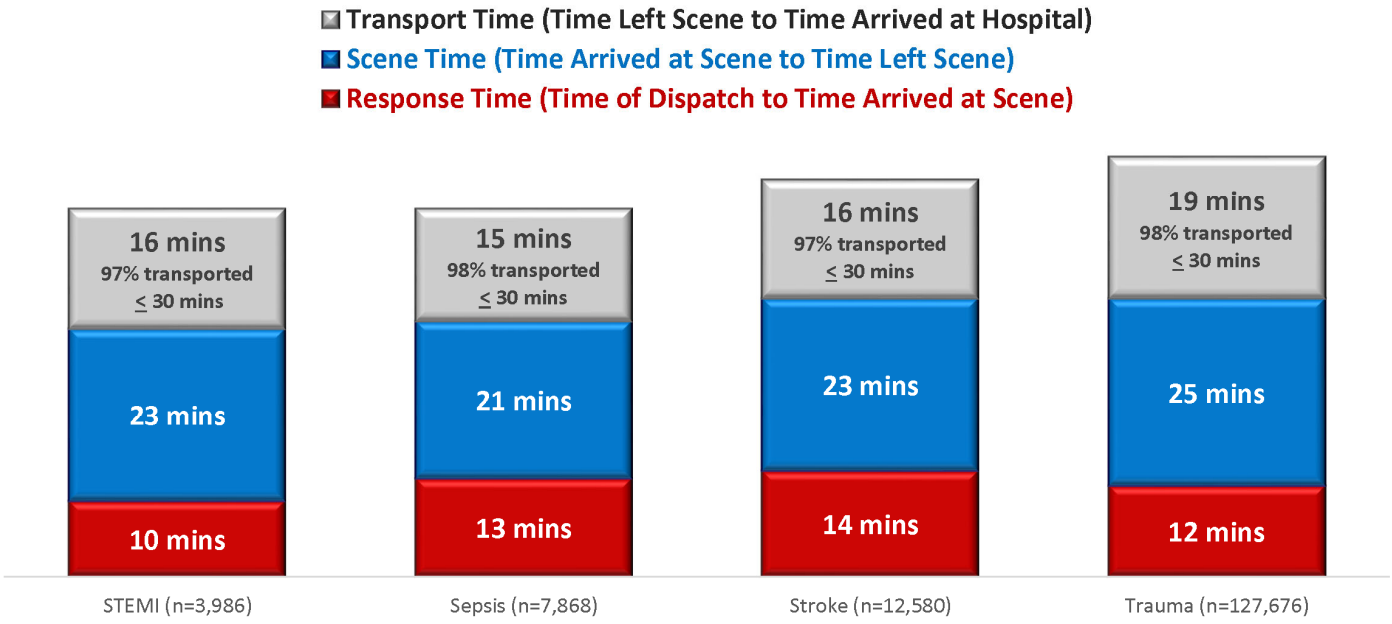


2022 EMS Times: Adult (Median)

LA County EMS Transport Time of ADULT Patients with Provider Impressions STEMI, Stroke, Sepsis and Traumatic Injuries

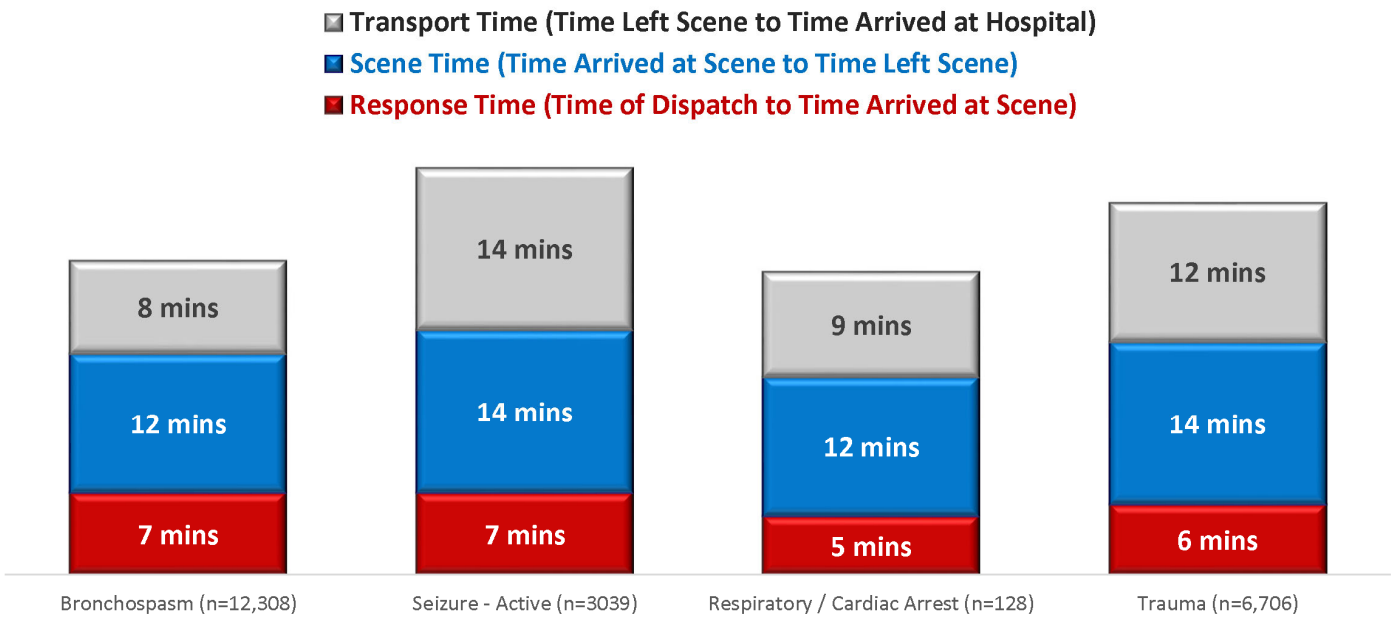


2022 EMS Times (90th Percentile)

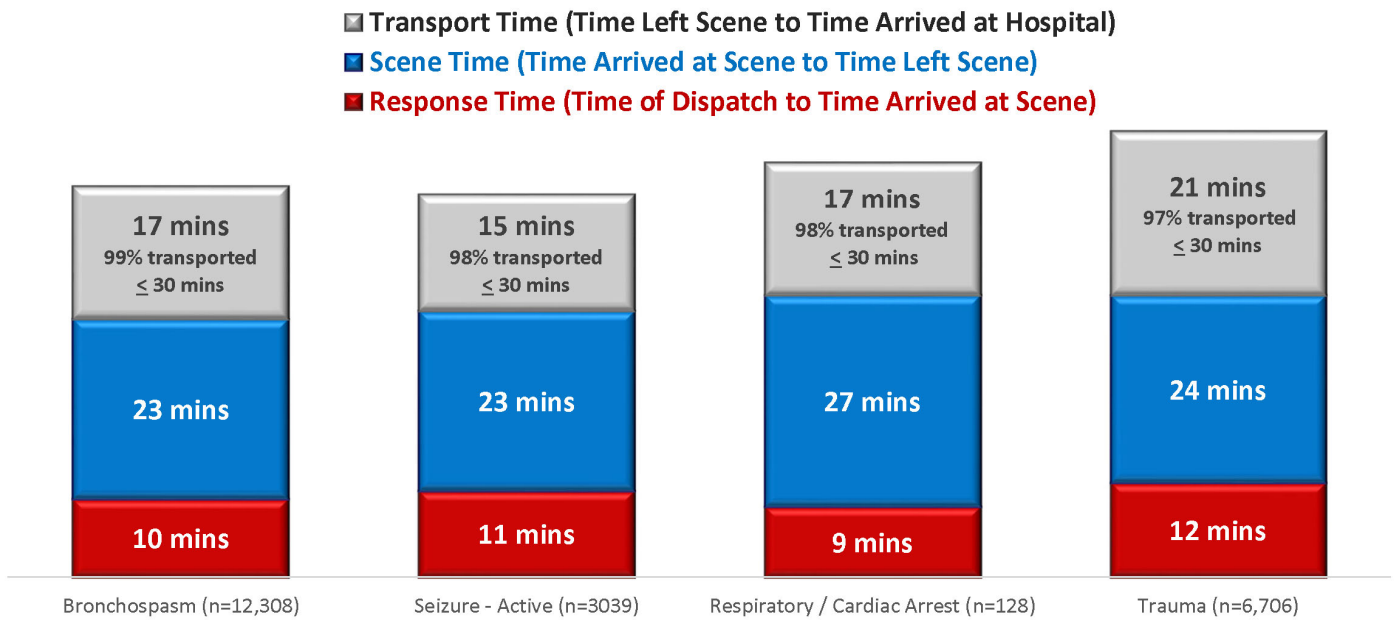


2022 EMS Times: Pediatric (Median)

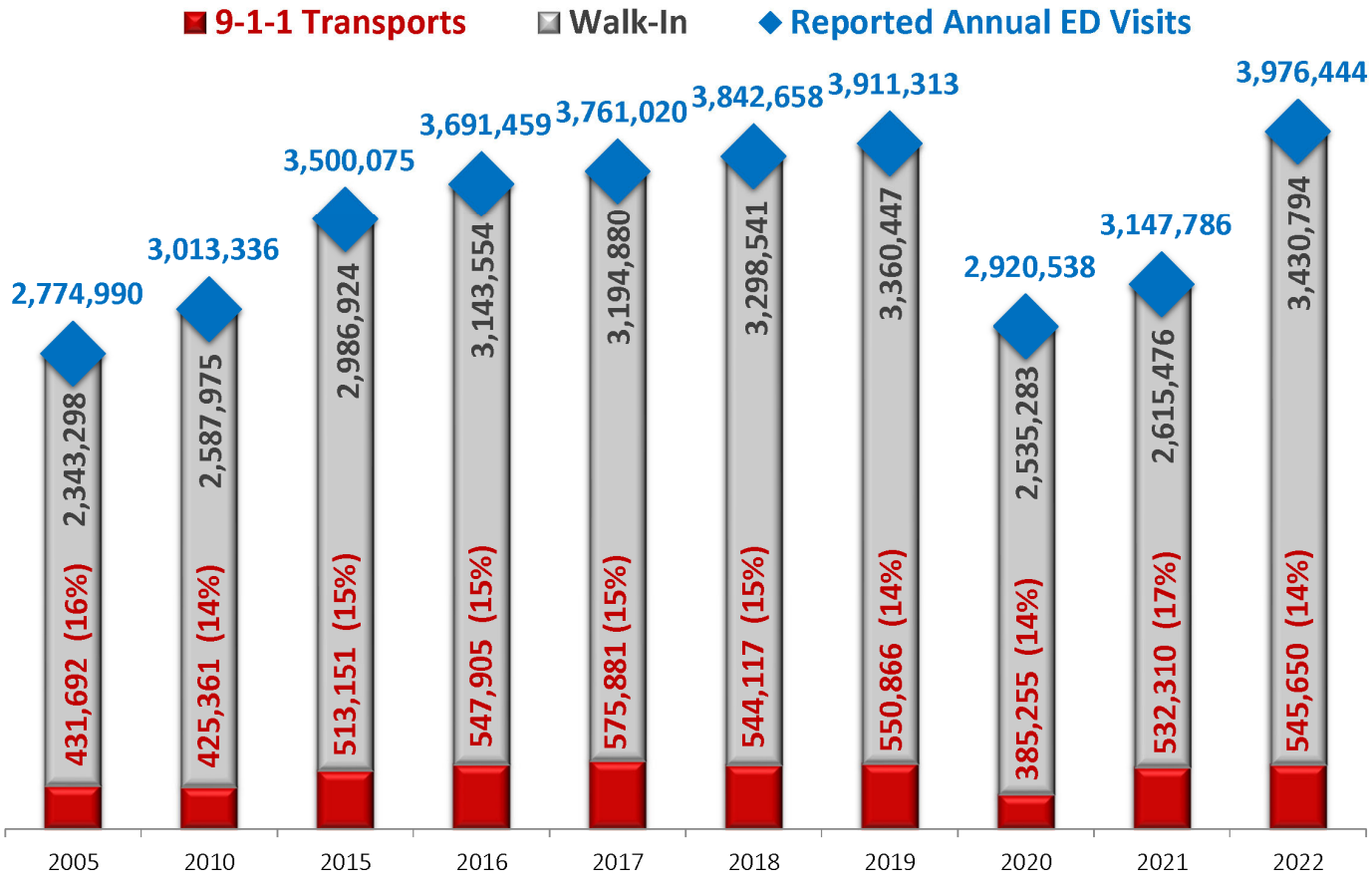
LA County EMS Transport Time PEDIATRIC Patients with Provider Impressions Bronchospasm, Seizure, Respiratory/Cardiac Arrest and Traumatic Injuries



2022 EMS Times: Pediatric (90th Percentile)

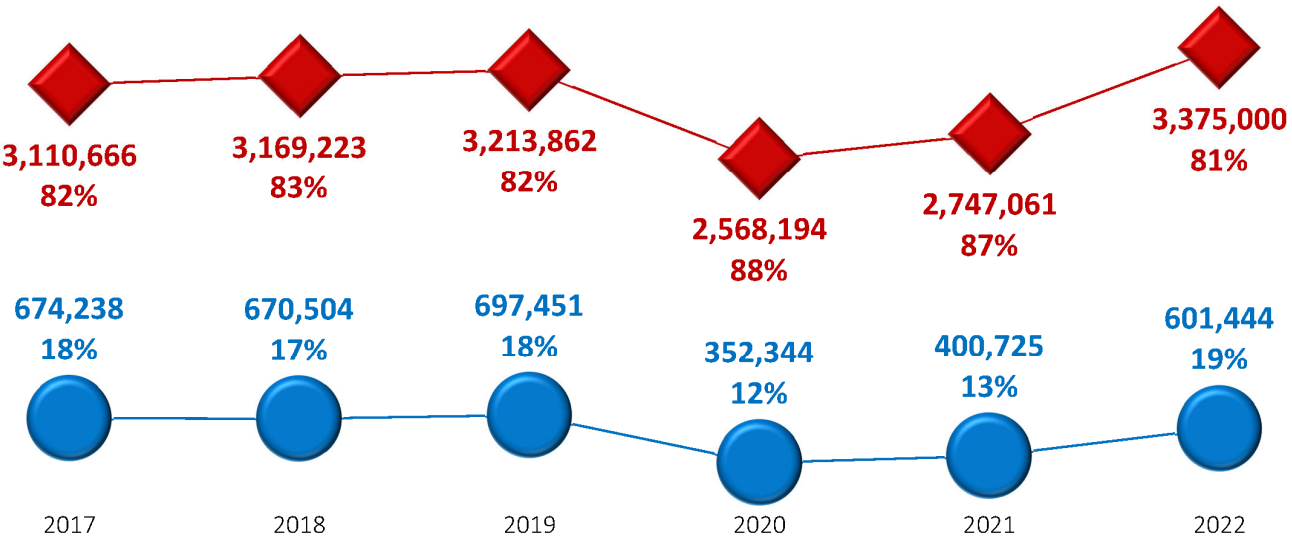


Emergency Department Volume

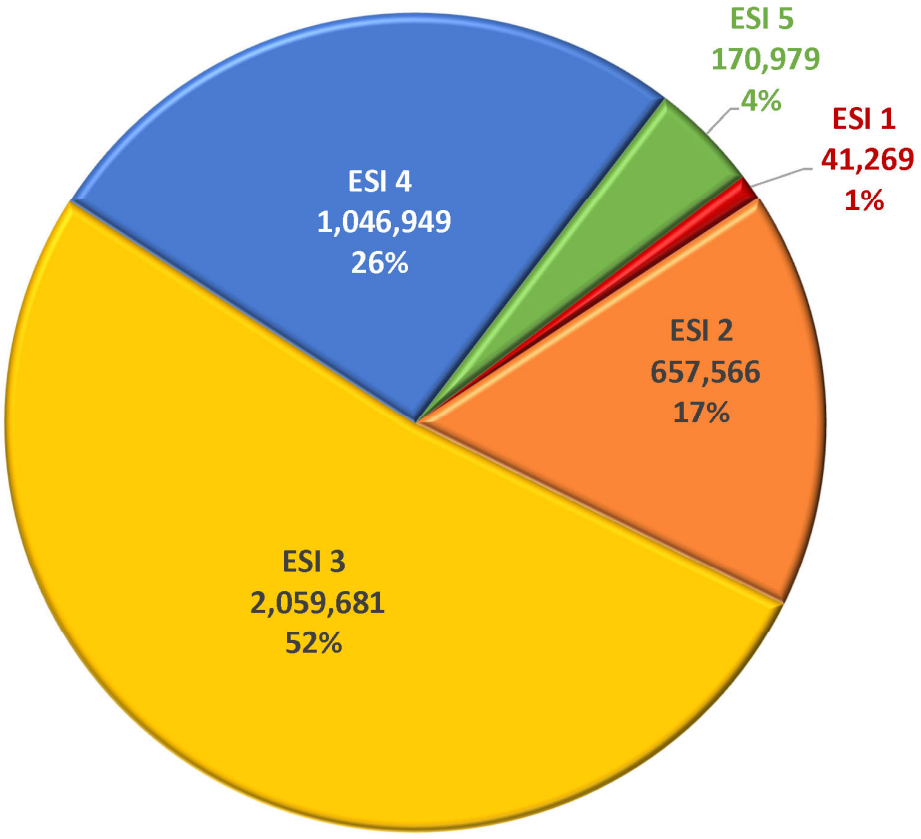


Adult:
15 years and older

Pediatric:
14 years and younger



Emergency Severity Index (ESI)



ESI 1—Patient requiring immediate life-saving interventions: airway, emergency medications, or other hemodynamic; and/or any of the following conditions: intubated, apneic, pulseless, severe respiratory distress, SPO2 <90, acute mental status changes, or unresponsive (defined as nonverbal and not following commands (acutely); or requires noxious stimulus

ESI 2—Patient with a high risk of deterioration or signs of a time critical problem; confused/lethargic/disoriented; or severe pain/distress. Pediatric fever is age 1 to 28 days; temperature >38.0 C.

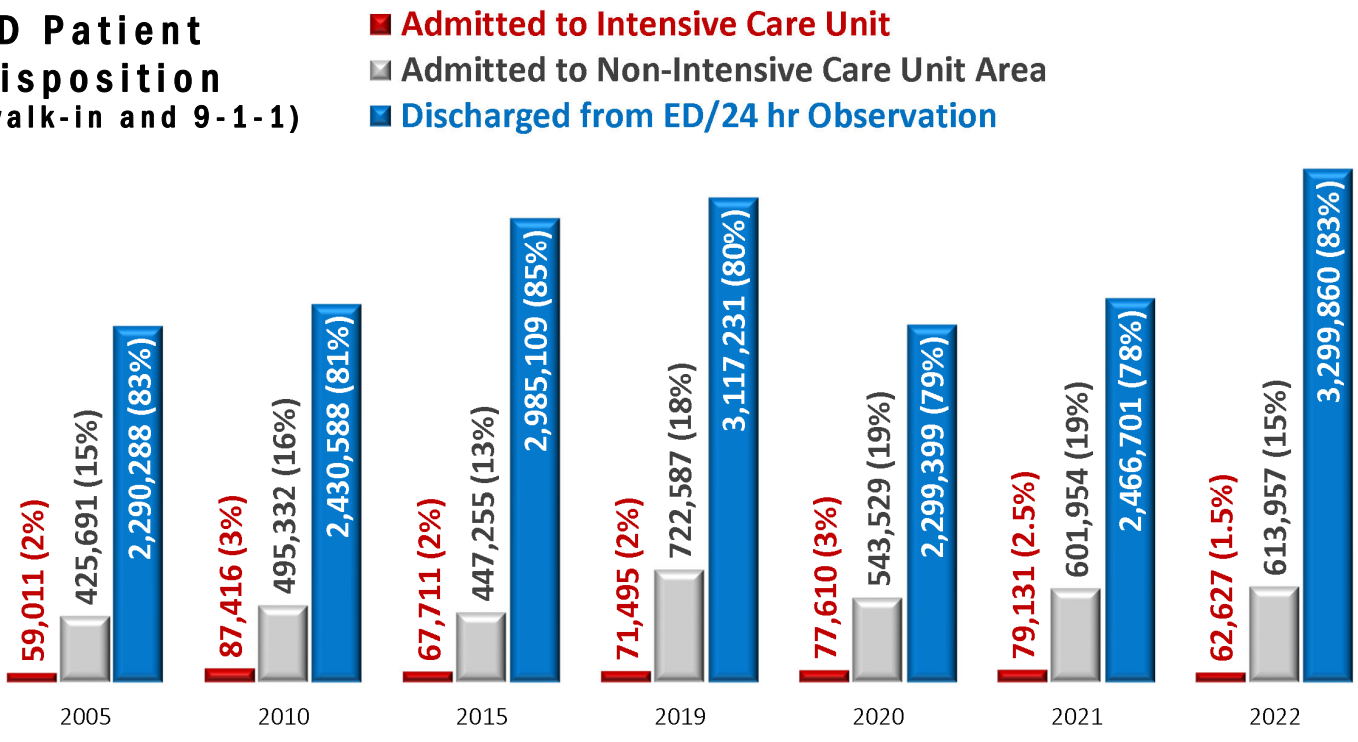
ESI 3—Patient is currently stable but requires multiple different types of resources* to diagnose or treat condition (e.g., diagnostic tests and procedures).

ESI 4—A patient requiring a single resource* such as only an x-ray or sutures.

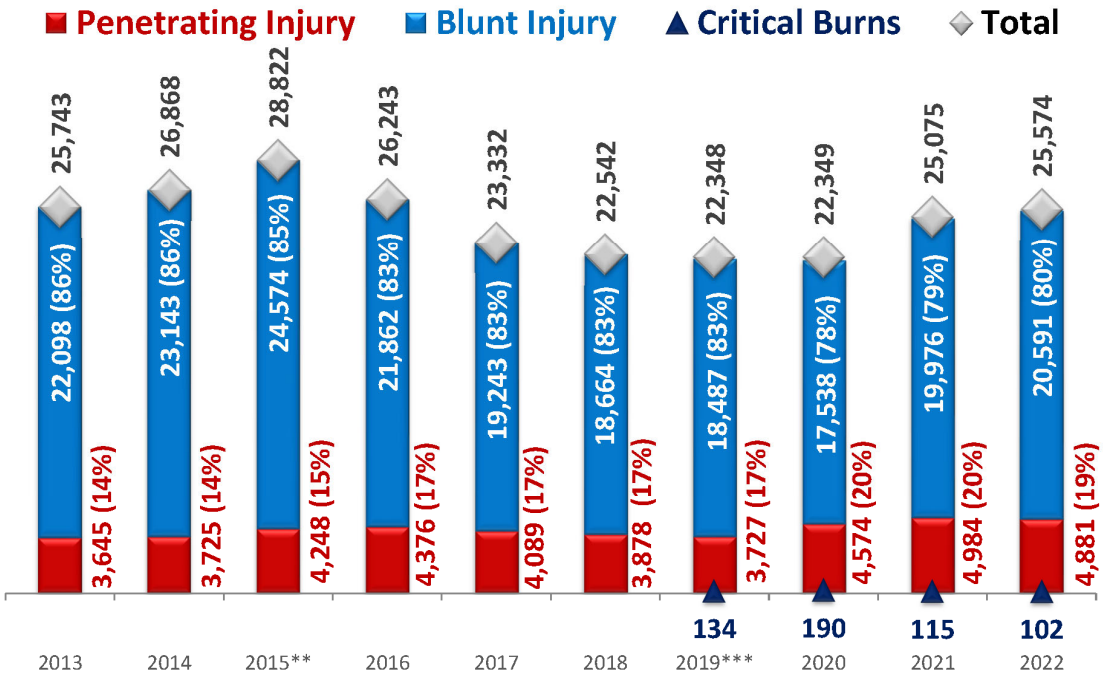
ESI 5—A patient not needing any resources*.

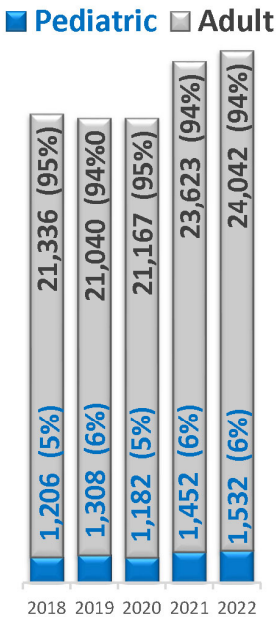
*The following are not considered resources: simple would care-dressing/recheck; sling, PO medications, saline lock, history and physical-including a pelvic exam; point of care testing; tetanus immunization; prescription refills, crutches; splint

ED Patient Disposition
(walk-in and 9-1-1)



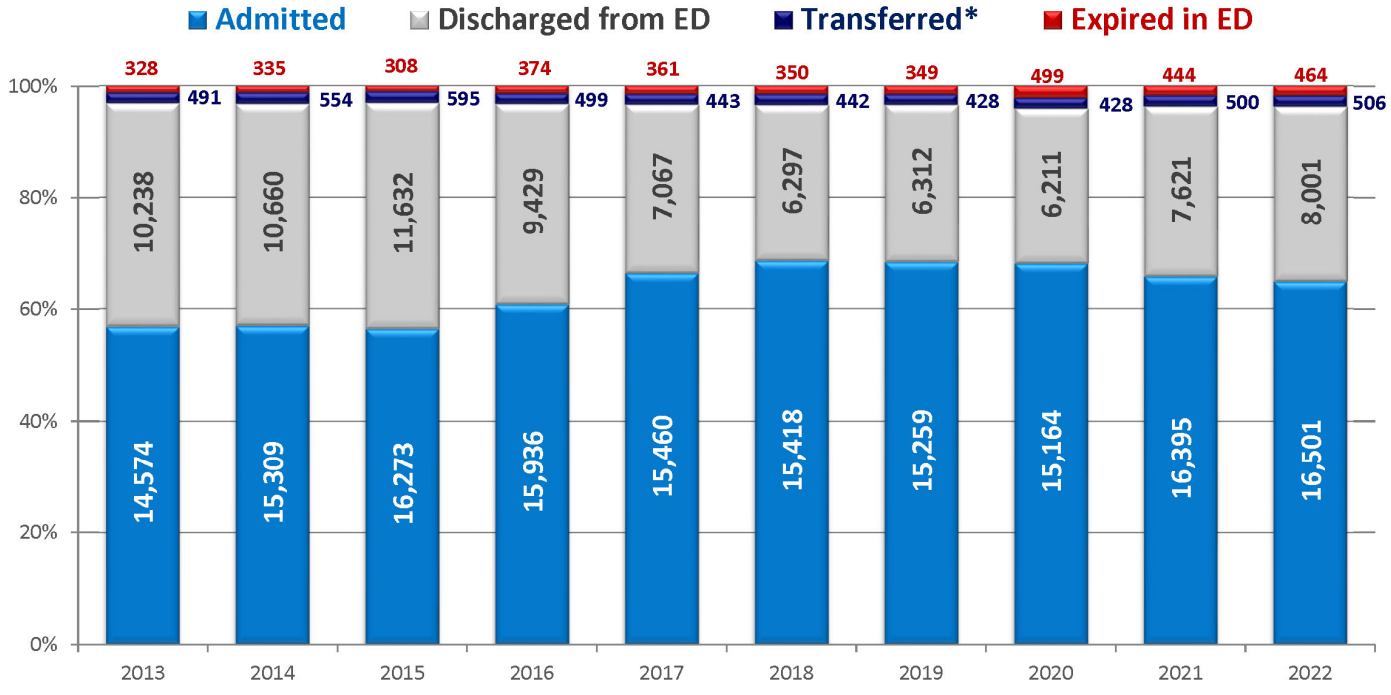
Trauma Center Volume (includes EMS transports and Walk-In patients who met trauma center criteria/guidelines)





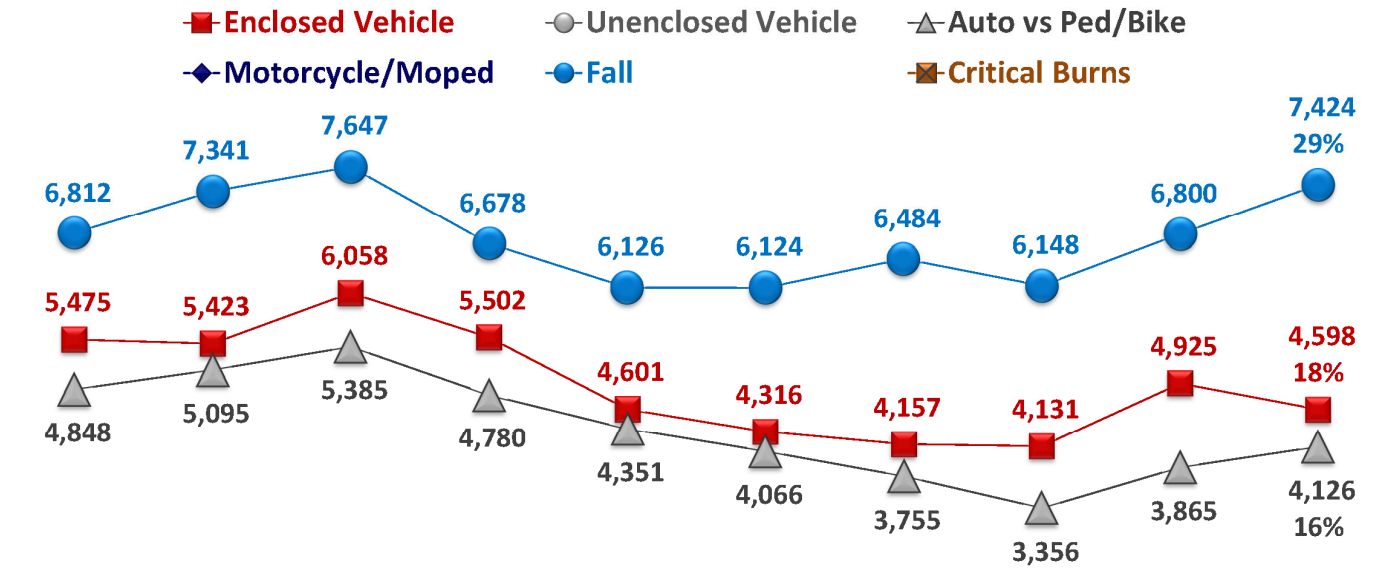
*2015 : Trauma Center Registry inclusion criteria was revised.
**2019: Critical Burns added as a Trauma Center Criteria

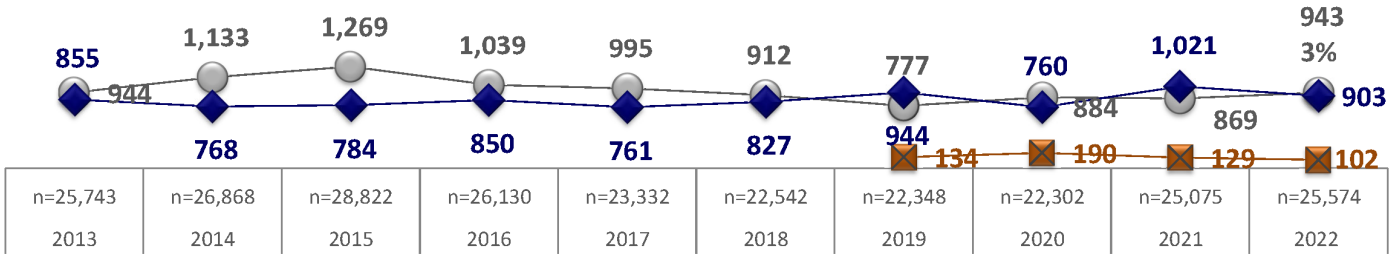
Patient Disposition of Trauma Center Patients



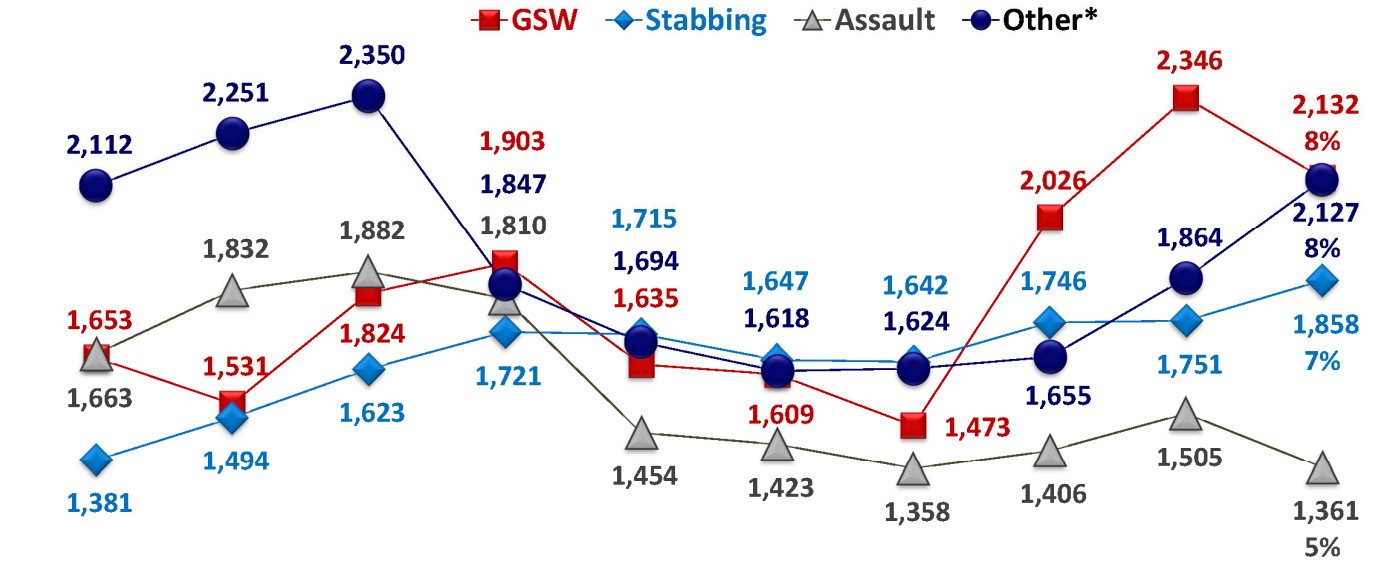
* Transferred to another health facility

Mechanism of Injury: Patients Transported to Trauma Centers





n=25,743	n=26,868	n=28,822	n=26,130	n=23,332	n=22,542	n=22,348	n=22,302	n=25,075	n=25,574
2013	2014	2015	2016	2017	2018	2019	2020	2021	2022

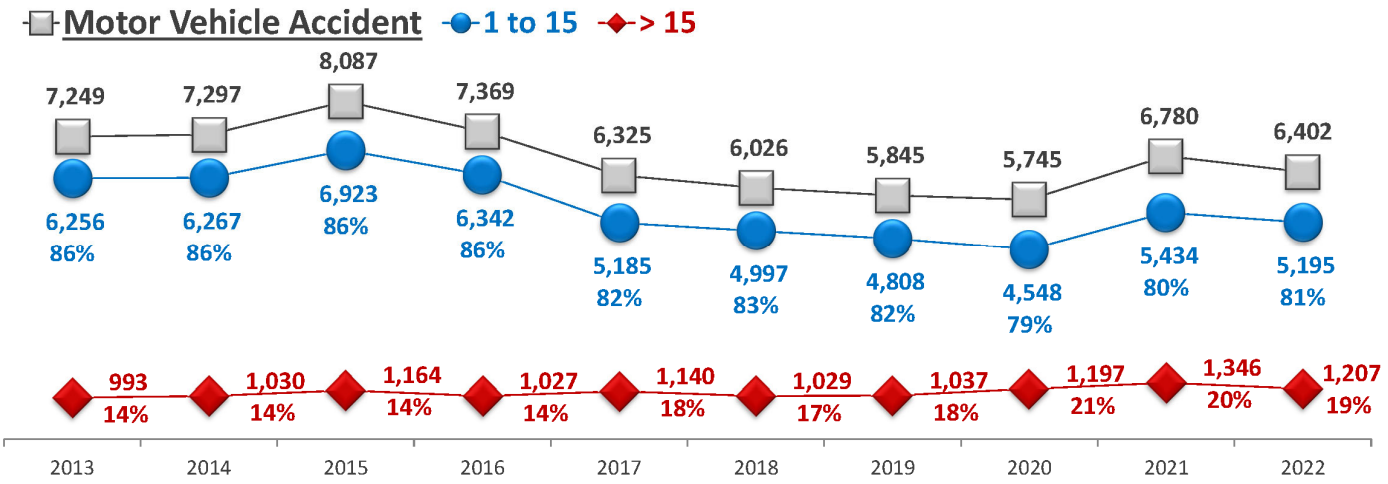


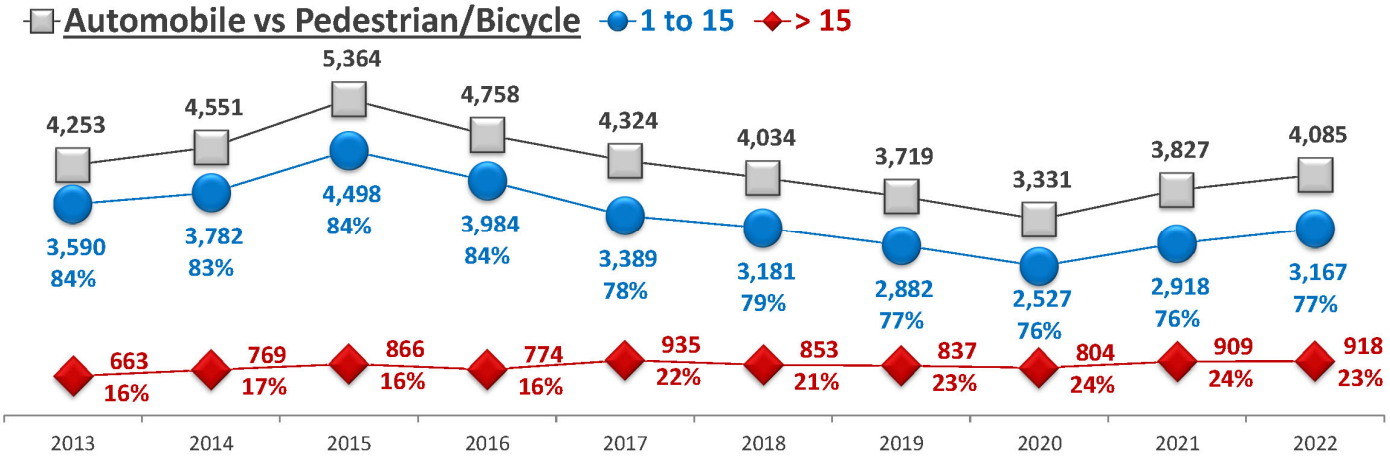
n=25,743	n=26,868	n=28,822	n=26,130	n=23,332	n=22,542	n=22,348	n=22,302	n=25,075	n=25,574
2013	2014	2015	2016	2017	2018	2019	2020	2021	2022

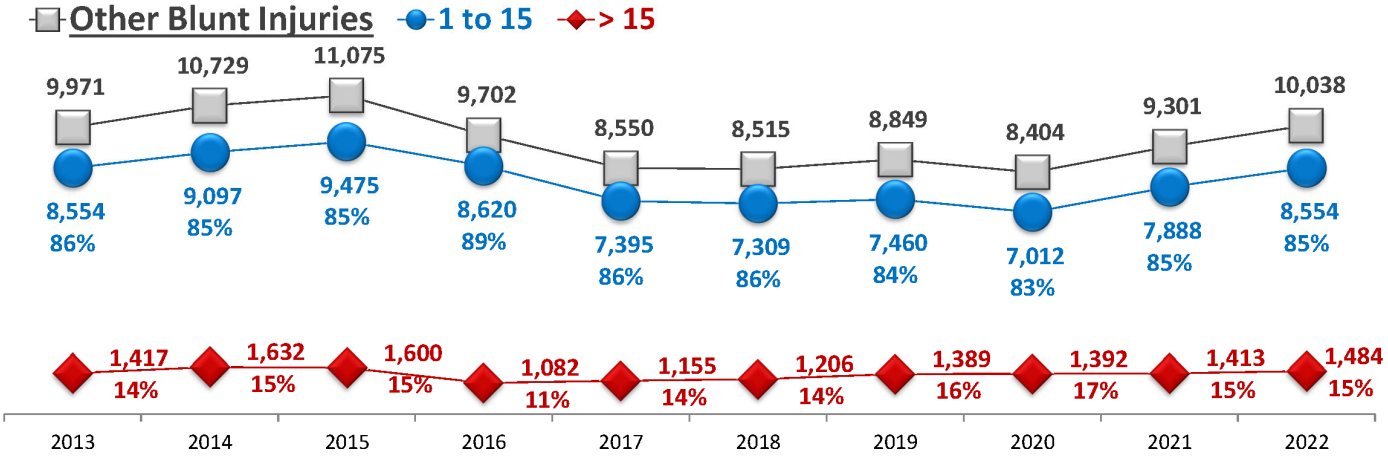
* Other: includes Sports, Work Related, Self-Inflicted, Unknown

Injury Severity Score by Mechanism of Injury

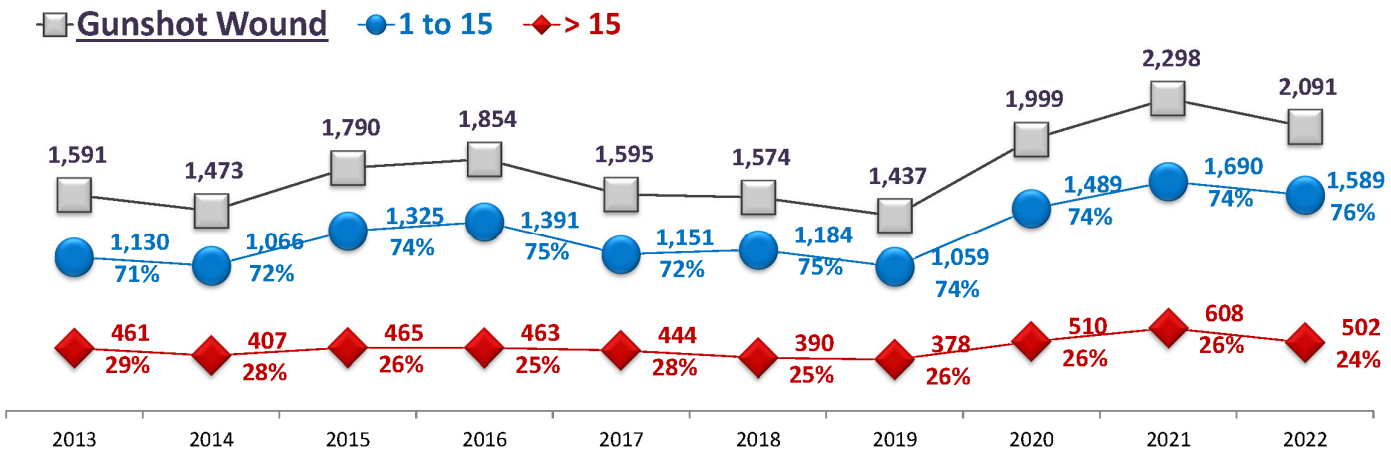
Injury Severity Score (ISS): Is an established medical score to assess trauma severity. It correlates with mortality, morbidity and hospitalization time after trauma. It is used to define the term major trauma. A major trauma (or polytrauma) is defined as the ISS being greater than 15.

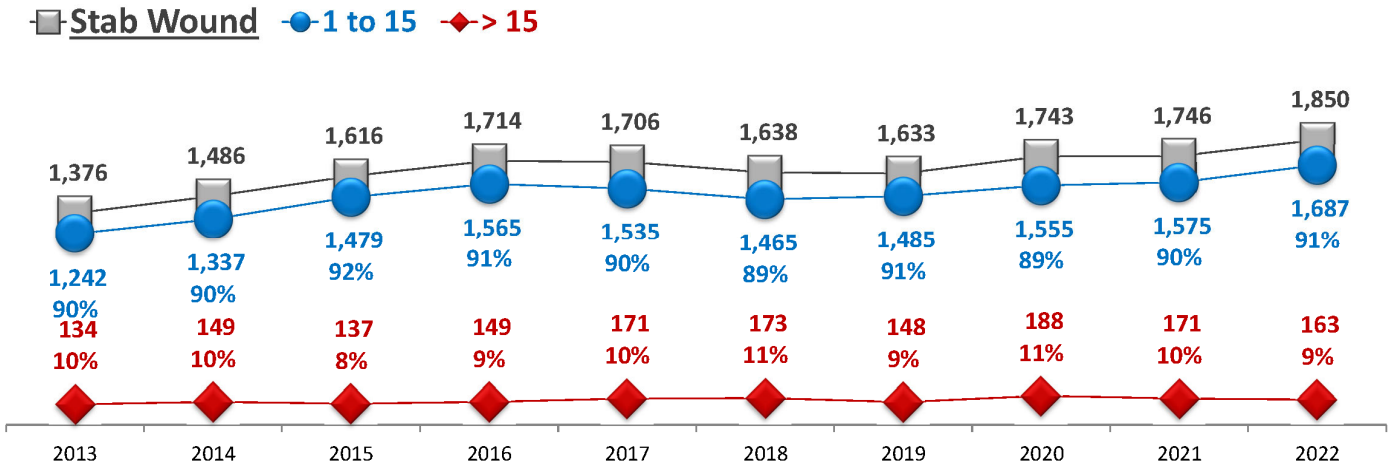


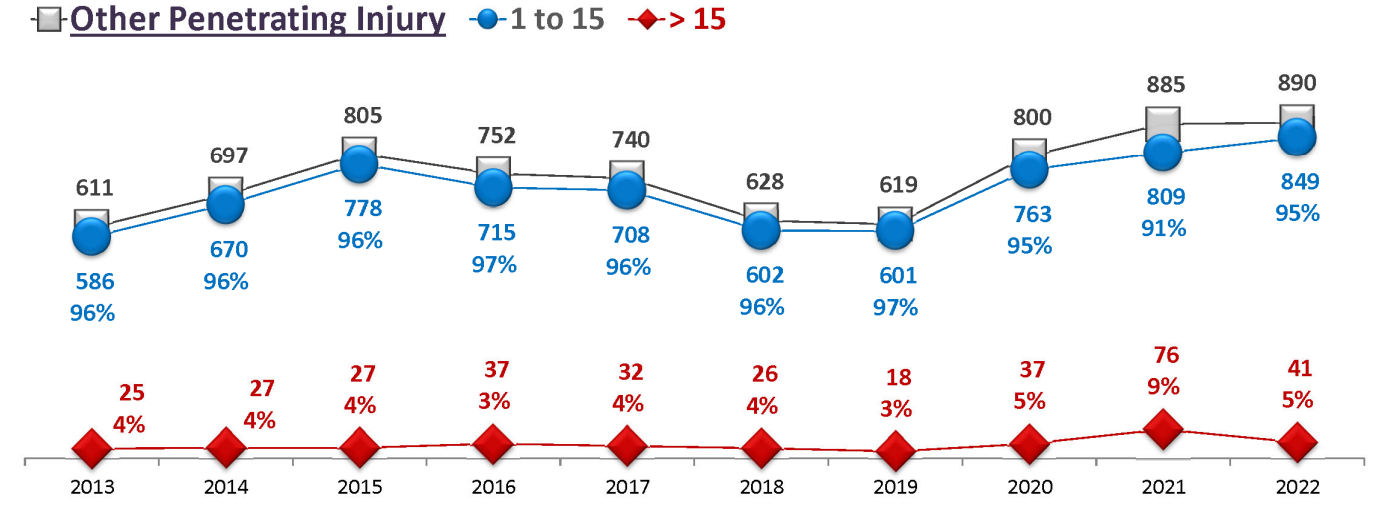




Injury Severity Score by Mechanism of Injury



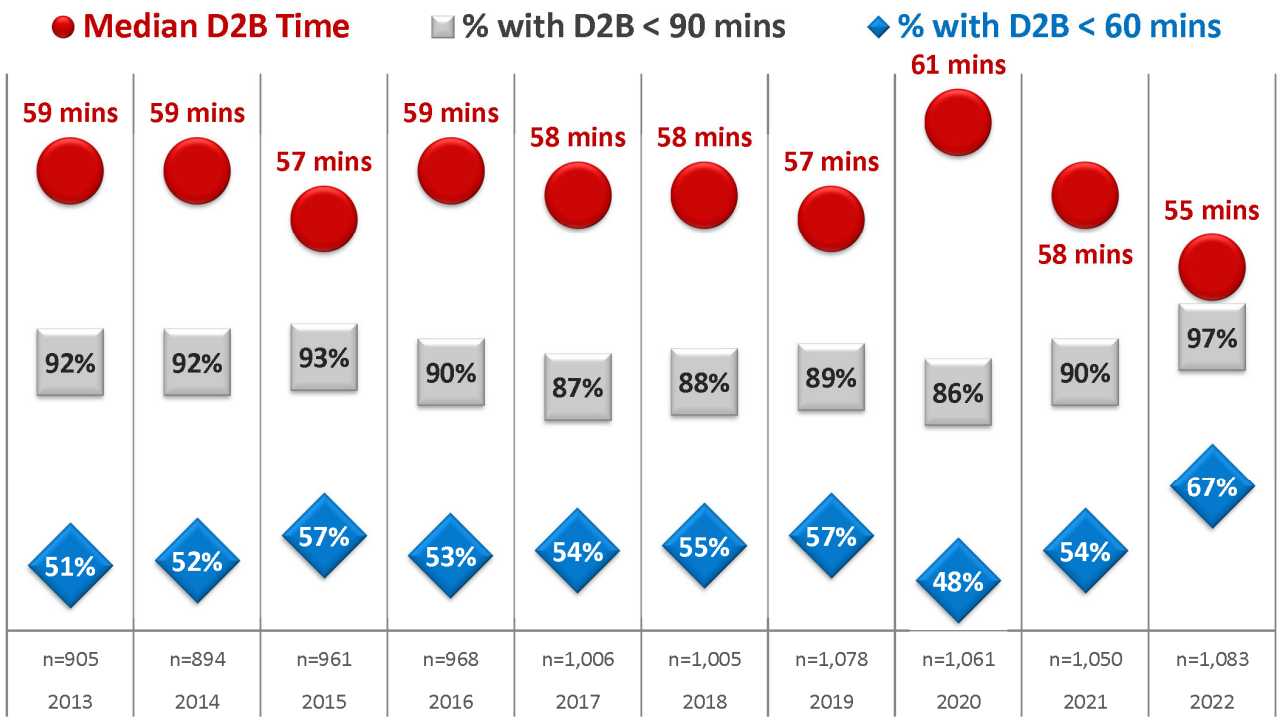




ST-Elevation Myocardial Infarction (STEMI)

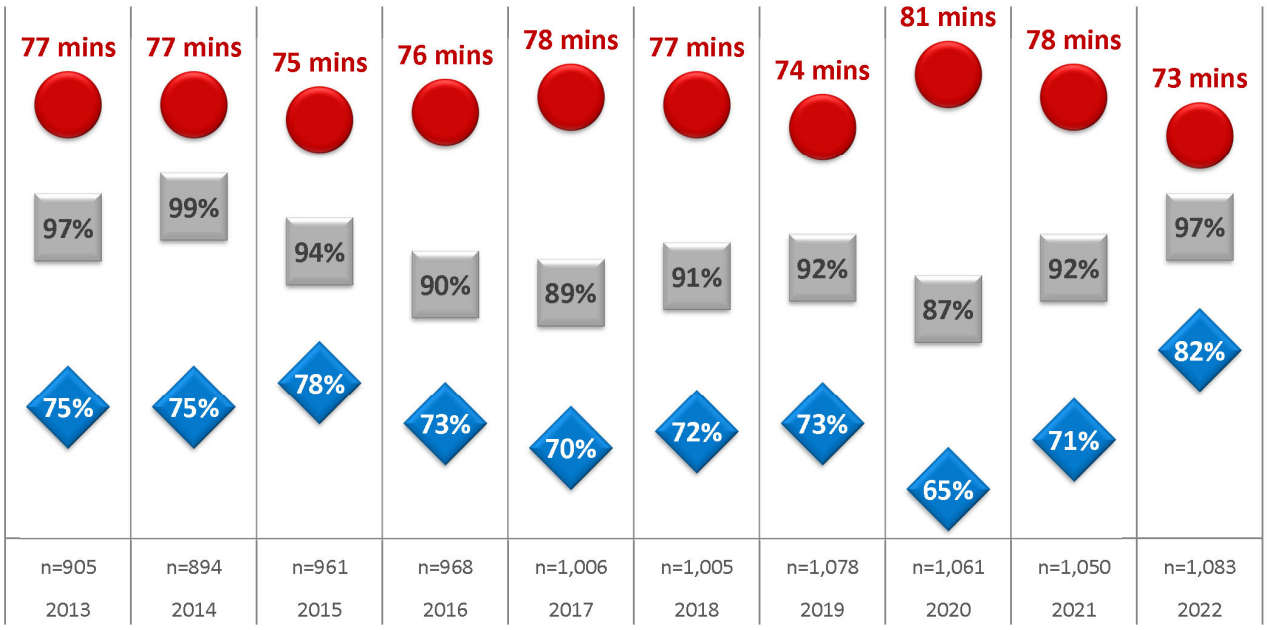
STEMI Receiving Center: Door-to-Device (D2B) Time

LA County Target: within 90 minutes 90% of the time



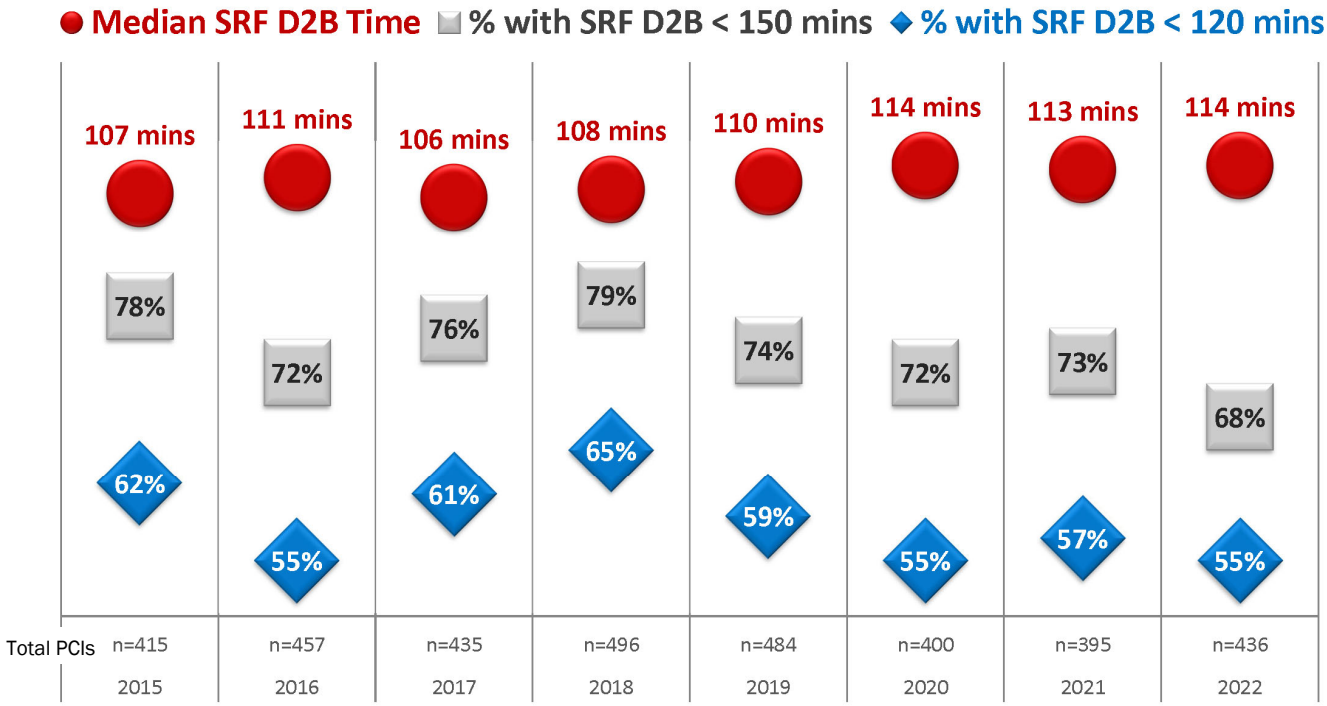
STEMI Receiving Center: EMS Medical Contact-to-Device (E2B) Time

LA County Target: within 120 minutes 90% of the time



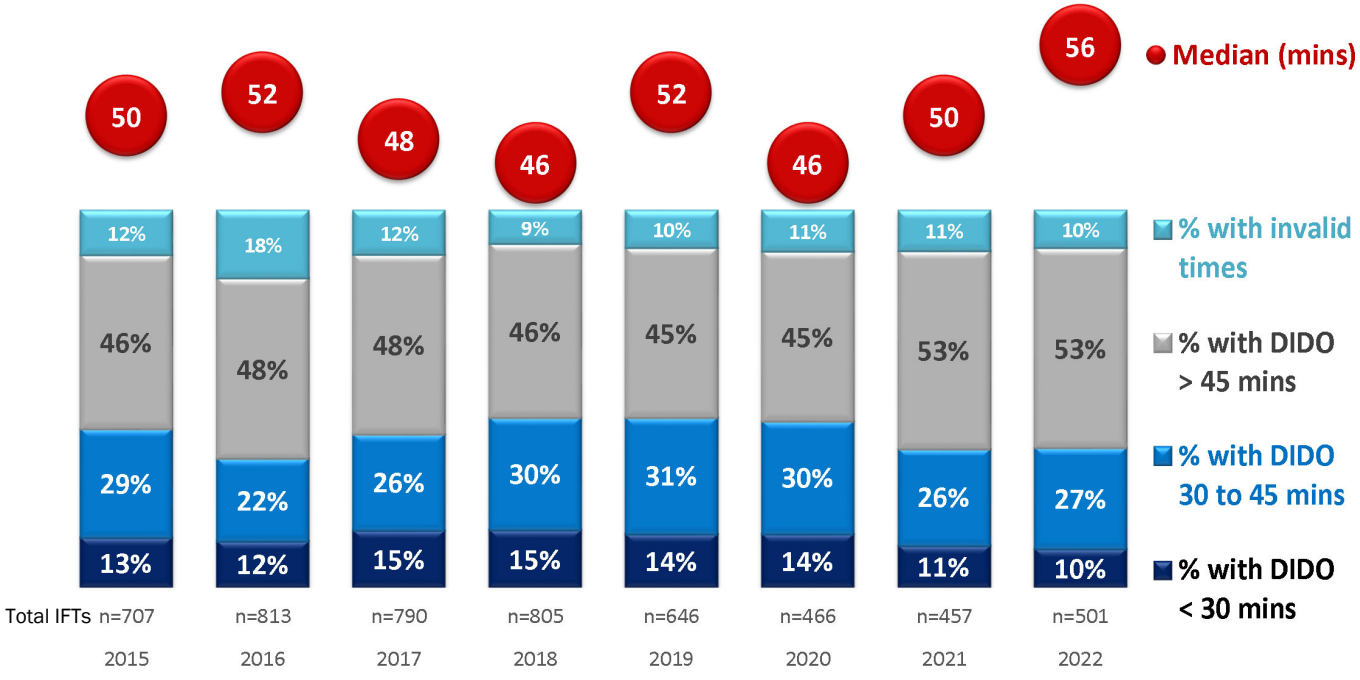
STEMI Referral Facility: Door-to-Device (D2B) Time

LA County Target: within 150 minutes 90% of the time



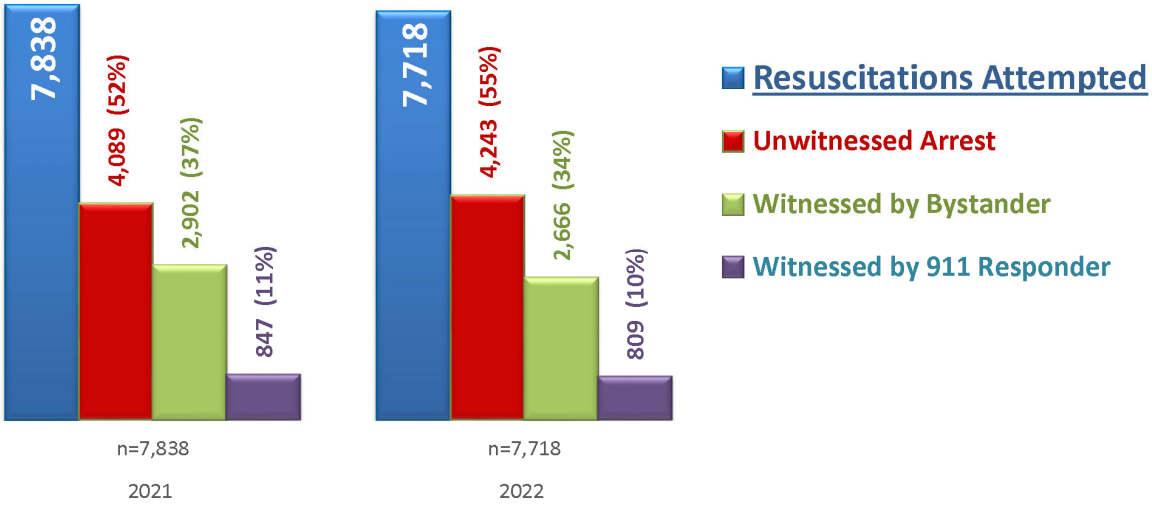
STEMI Referral Facility: Door-in Door-out (DIDO) Time

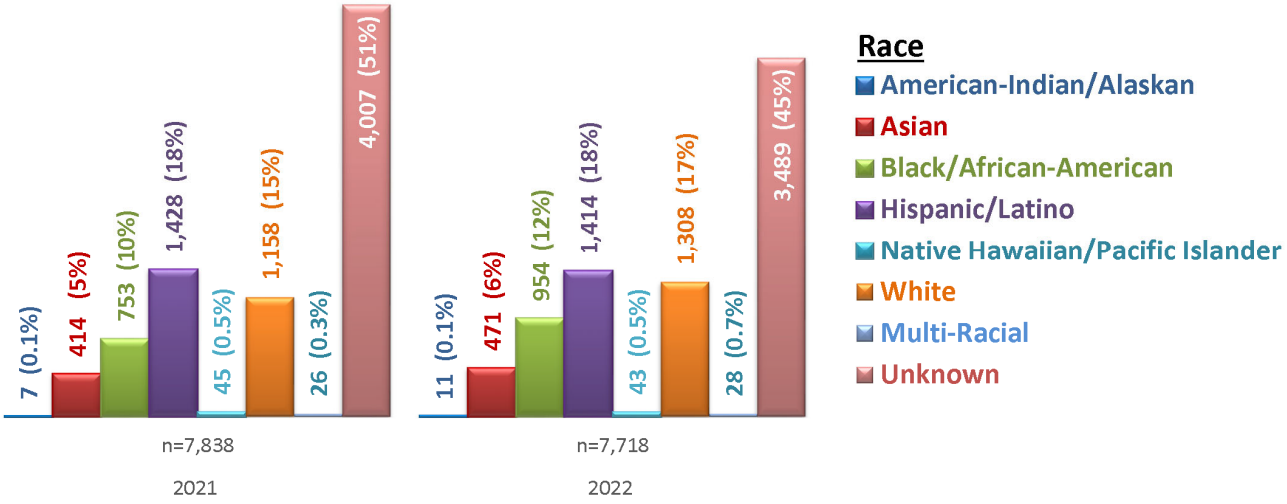
LA County Target: < 30 minutes

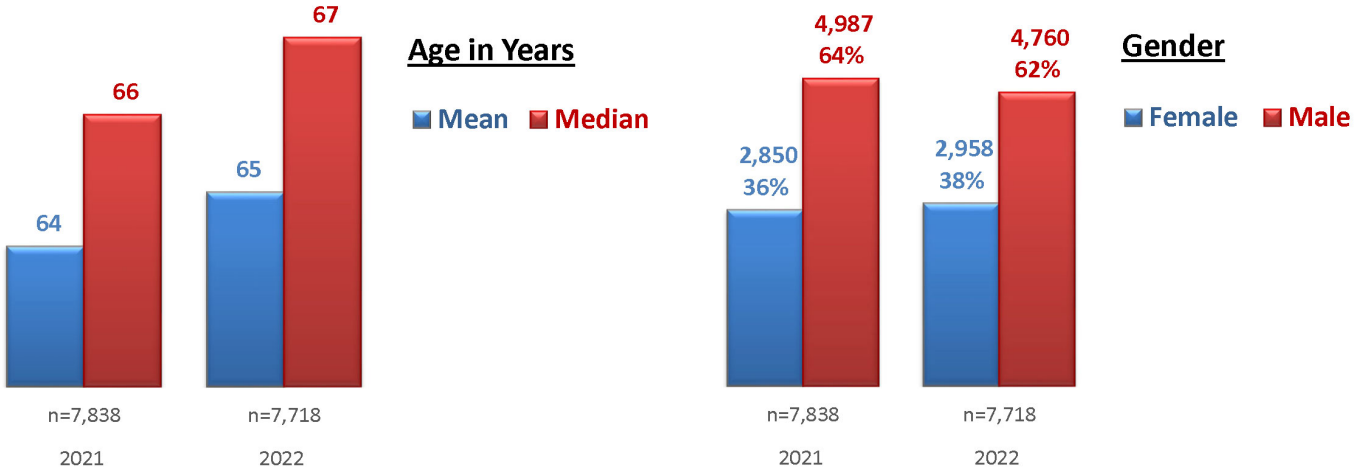


Out of Hospital Cardiac Arrest (OHCA)

Non-Traumatic Etiology

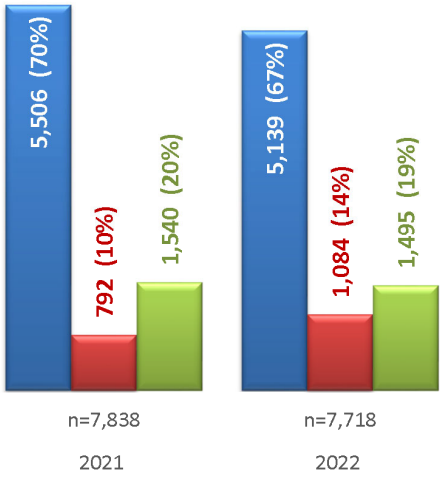




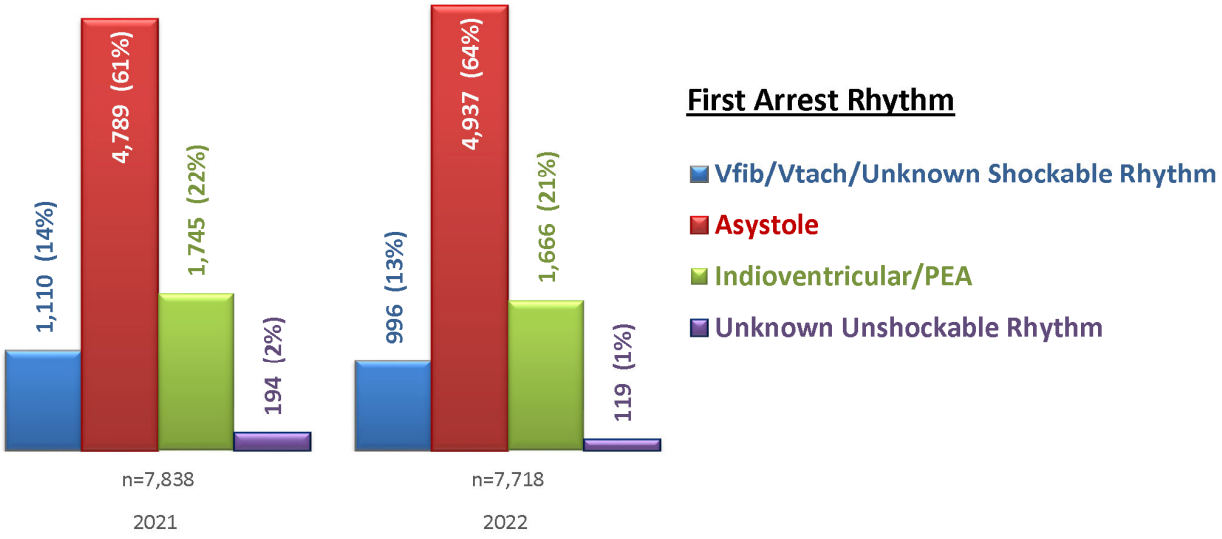


Data Source: Cardiac Arrest Registry to Enhance Survival

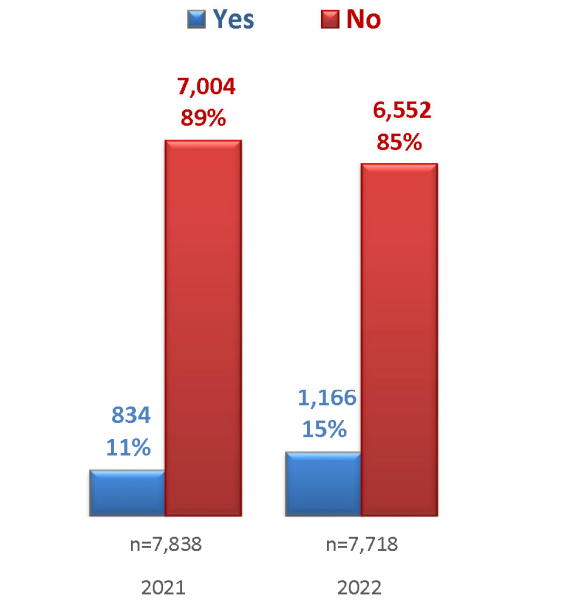
Arrest Location



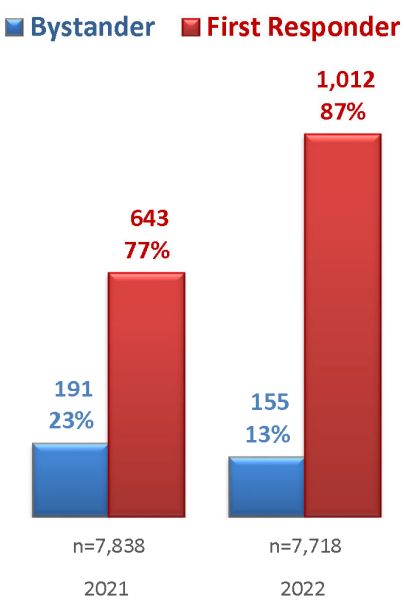
First Arrest Rhythm



Was an AED Applied prior to EMS Arrival?



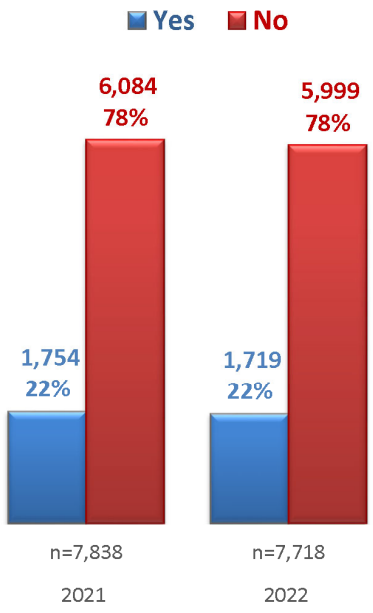
Who First Applied AED?



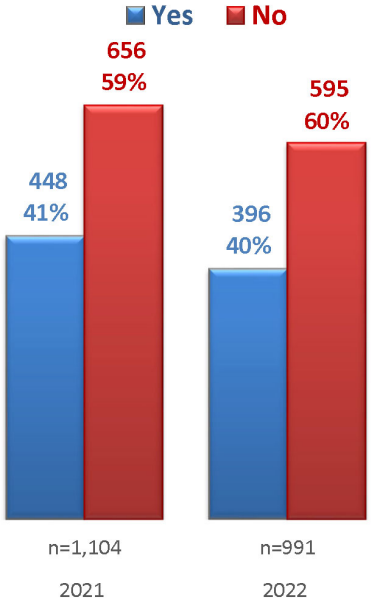
Out of Hospital Cardiac Arrest (OHCA)
Return of Spontaneous Circulation (ROSC)

Who Initiated CPR?

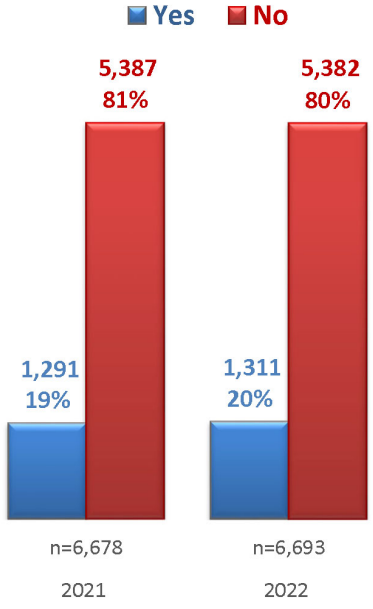
Sustained ROSC All Patients



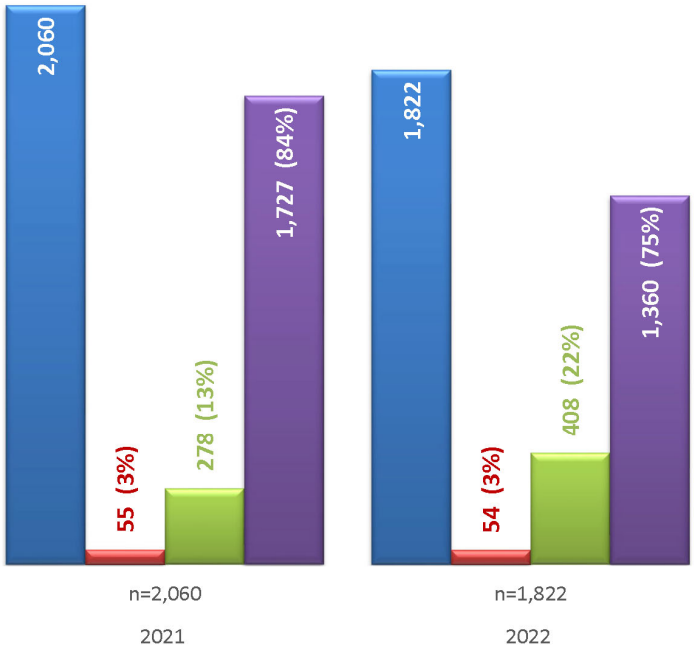
Sustained ROSC Shockable Rhythm



Sustained ROSC Non-Shockable Rhythm

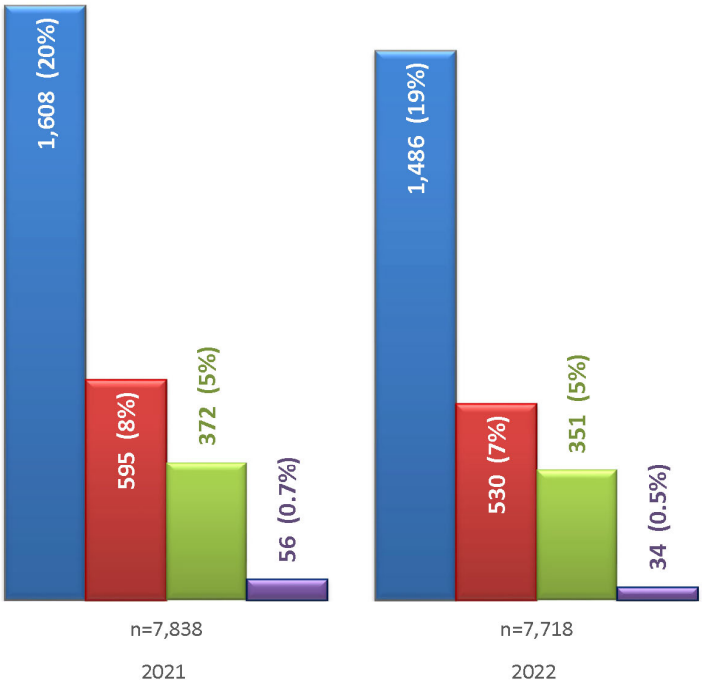


Data Source: Cardiac Arrest Registry to Enhance Survival



Who First Defibrillated the Patient?

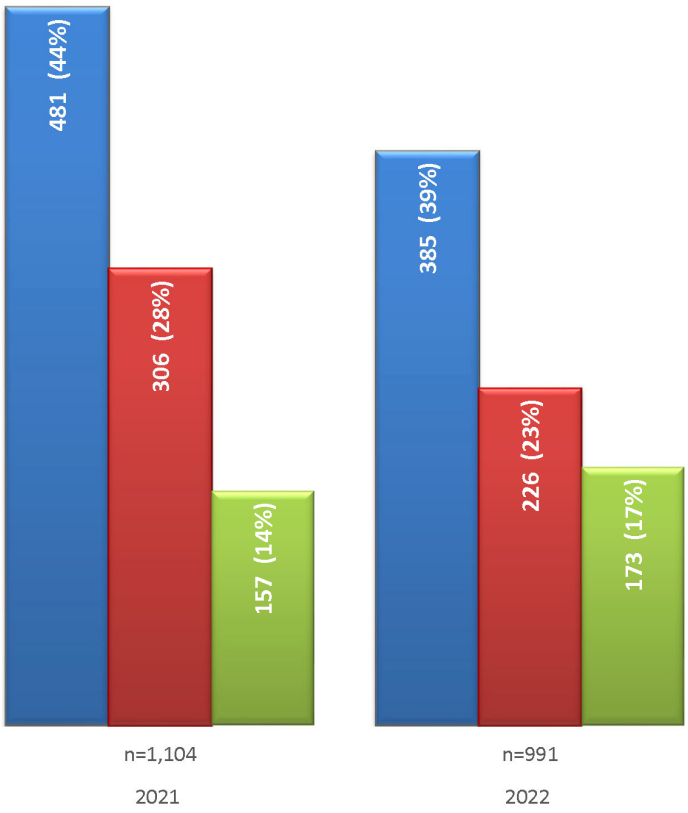
- Patients Defibrillated
- Bystander
- First Responder
- Responding EMS Personnel



Cardiac Arrest Outcome

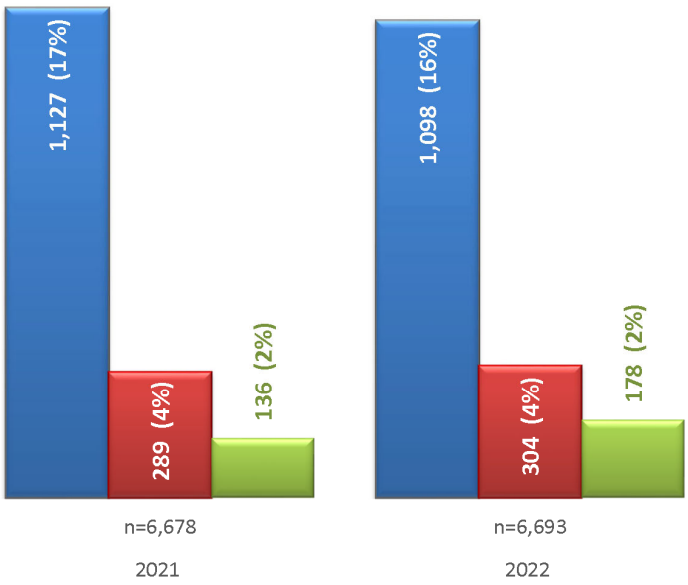
- Overall Survival to Hospital Admission
- Overall Survival to Hospital Discharge
- With Good or Moderate Cerebral Performance (CPC 1 or 2)
- Missing Hospital Outcome

Out of Hospital Cardiac Arrest (OHCA)



Cardiac Arrest Outcome: Shockable Rhythm

- Overall Survival to Hospital Admission
- Overall Survival to Hospital Discharge
- With Good or Moderate Cerebral Performance (CPC 1 or 2)

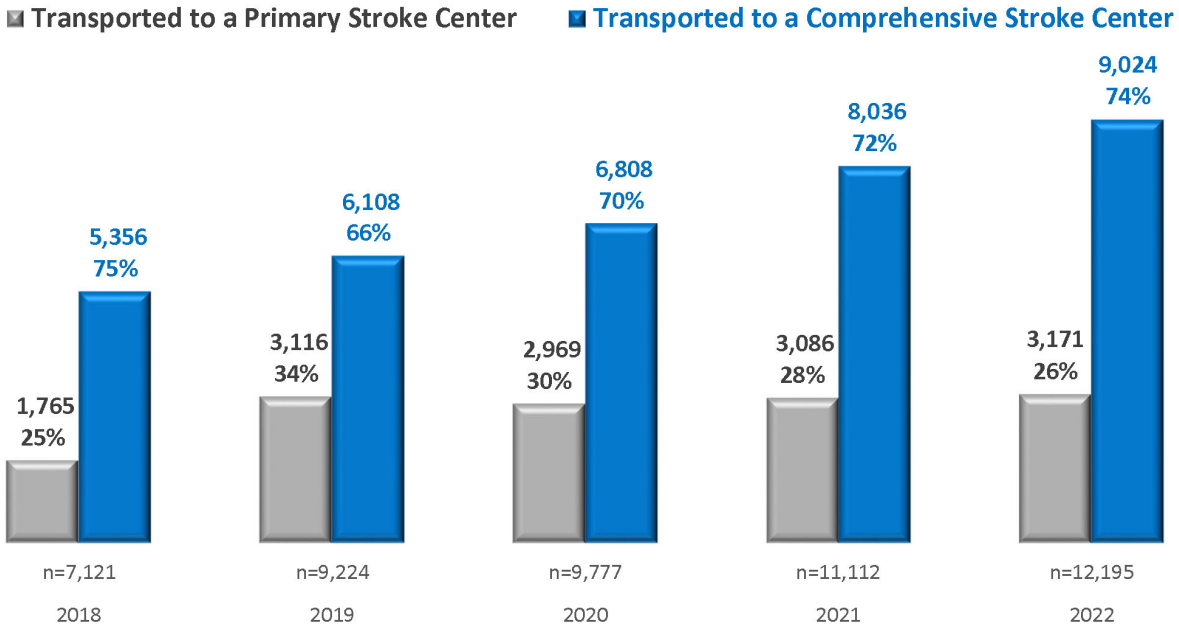


Cardiac Arrest Outcome: Non-Shockable Rhythm

- Overall Survival to Hospital Admission
- Overall Survival to Hospital Discharge
- With Good or Moderate Cerebral Performance (CPC 1 or 2)

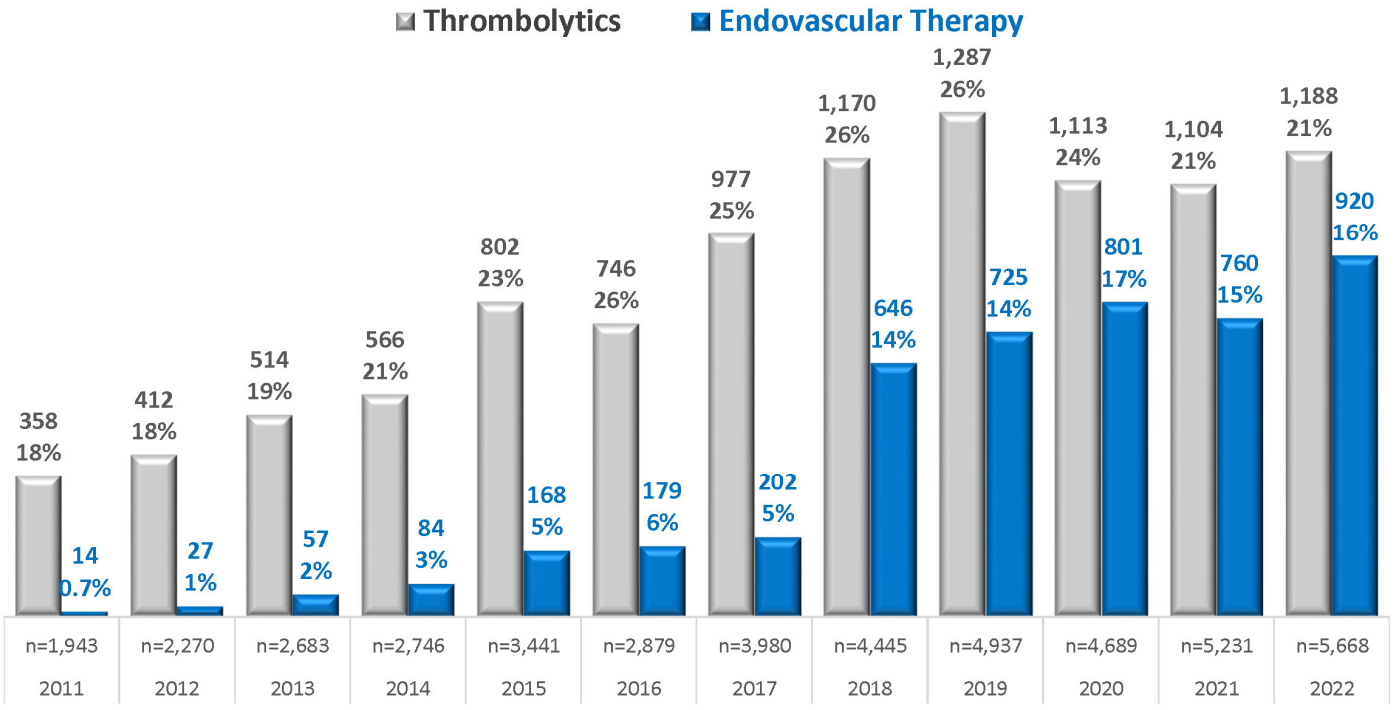
Suspected Stroke Patient Destination

The routing of suspected stroke patients with large vessel occlusions based on a Los Angeles Motor Scale (LAMS) score of 4 or 5 to designated Comprehensive Stroke Centers began on January 8, 2018.

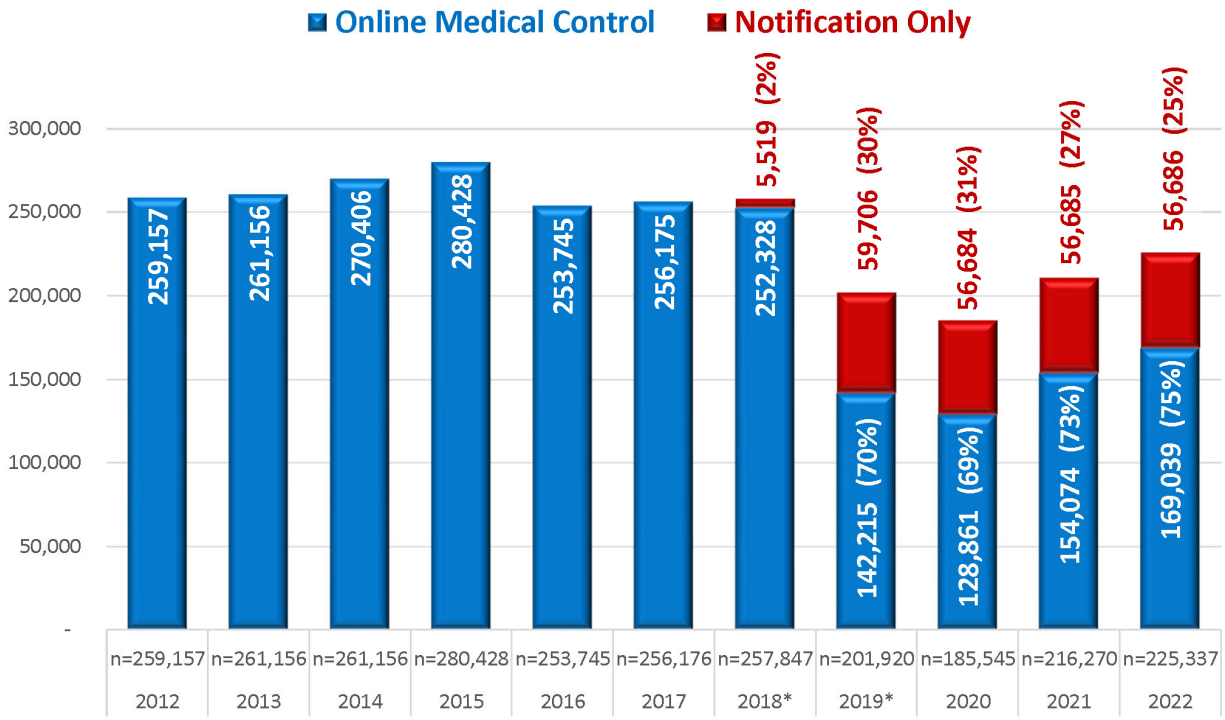


This chart is based on the Stroke Center Designation of the receiving facility, regardless of routing criteria.

Treatment—All Ischemic Stroke



Paramedic Base Hospital Contact



* Phased-in imlementation of New Treatment Protocols started in July 1, 2018 and was fully implemented in April 1, 2019. The New Treatment Protocols reduced the number of EMS responses requiring online medical control.

EMS AGENCY

To ensure timely, compassionate, and quality emergency and disaster medical services.

10100 Pioneer Boulevard, Ste. 200
Phone: 562-378-1500
Web: http//ems.dhs.lacounty.gov

For data request please complete and submit Reference No. 622.1 at https://https://file.lacounty.gov/SDSInter/dhs/1036072_622.1.pdf

Southwest Regional Trauma Coordinating Committee

Trauma Grand Rounds

Date: Wednesday, March 6, 2024

Time: 0900 to 1100 Hours

Location: Virtual

We are proud to present:

***Ocular Trauma**, presented by Dr. Brenton D. Finklea, Cornea Attending Surgeon & Director, Wills Eye Center for Academic Global Ophthalmology*

***Difficult Field Extractions and Transports**, presented by Dr. Robert Katzer, Professor of Emergency Medicine, Associate Base Hospital Director, UC Irvine*
Medical Director, City of Anaheim Fire and Rescue
Air Medic, San Bernardino County Sheriff

Registration is <u>required</u> at: SWRTCC Trauma Grand Rounds Registration (smartsheet.com)

Registration will close on March 3, 2024, at 5:00 pm

(The Microsoft Teams link will be sent via email prior to the event)

Target Audience: Physician, RN, MICN, Paramedic, EMT.

CE/CME are pending approval.

2024 Annual EMSAAC CONFERENCE

May 29 & 30, 2024

HO'OHANA

HAWAIIAN: DO MEANINGFUL WORK

Loews Coronado Hotel, San Diego

Pre-Conferences held concurrently on Tuesday, May 28, 2024

- **EMS Investigations from 11:00 am - 4:00 pm**
- **Applied CQI from 11:00 am - 4:00 pm**

EMSAAC
EMERGENCY MEDICAL SERVICES ADMINISTRATORS' ASSOCIATION OF CALIFORNIA

Sponsored by: EMS Administrators' Association of California
Monitor the EMSAAC website for current information: www.EMSAAC.org

HO'OHANA: DO MEANINGFUL WORK

The EMS Administrators' Association of California (EMSAAC) cordially invites California's EMS leaders and professionals to join us for the EMSAAC Annual Conference 2024 at the Loews Coronado Resort on the Coronado Peninsula in San Diego. EMSAAC continues to lead the way in creating conferences that are meaningful and exciting to attend. This year's theme, HO'OHANA is a Hawaiian word for "Do Meaningful Work" embodies the concept that puts EMS professionals to work everyday to do the valuable life-saving work that we are called to do. The theme lays down the foundation for a broad variety of subject matter to interest all levels of prehospital care personnel and managers including ambulance providers, fire department personnel, military and law enforcement partners, LEMSA personnel, ED nurses, physicians, emergency preparedness coordinators and anyone who provides EMS to their community. The conference includes lectures, panel discussions and opportunities to network with current leaders and innovators in EMS as well as previews new and upcoming equipment, products and services.

In keeping with the theme and as a result of the devastating fires in Maui, EMSAAC will be collecting donations for Maui First Responders that will be distributed through a Maui foundation.

About EMSAAC

EMSAAC is composed of administrators from 34 Local EMS Agencies (LEMSAs). These county-designated agencies are responsible for planning, coordinating, implementing, monitoring, and evaluating a local, integrated system of emergency medical services. The LEMSAs partner with the California EMS Authority to carry out applicable regulations and guidelines statewide.

Continuing Education Credits

This conference has been planned and implemented to provide instructor-based continuing education for nurses and prehospital care professionals through the Orange County Emergency Medical Services Agency, a division of the Orange County Health Care Agency.

Provider is approved by the California Board of registered Nursing, BRN Provider #13945 for up to 11 contact hours. California EMS CE provided by the Orange County EMS Agency CEP#30-0001. Up to 11 hours of instructor-based CE will be issued to EMTS, paramedics and MICNs upon completion.

EMSAAC

EMERGENCY MEDICAL SERVICES ADMINISTRATORS' ASSOCIATION OF CALIFORNIA

IN COLLABORATION WITH THE EMERGENCY MEDICAL DIRECTORS ASSOCIATION OF CALIFORNIA

Alameda
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Inland
Kern
Los Angeles
Marin
Merced
Monterey
Mountain-Valley
Napa
North Coast
Northern California
Orange
Riverside
Sacramento
San Benito
San Diego
San Francisco
San Joaquin
San Luis Obispo
San Mateo
Santa Barbara
Santa Clara
Santa Cruz
Sierra-Sac Valley
Solano
Stanislaus
Tuolumne
Ventura
Yolo

HO'OHANA

HAWAIIAN: DO MEANINGFUL WORK

EMSAAC

MAY 29 & MAY 30, 2024

PRE-CONFERENCES MAY 28

(SEE PAGE 7 FOR DETAILS)

LOEWS
CORONADO BAY

Make your hotel reservations today!

Loews Coronado Bay Resort
4000 Lowes Coronado Bay Road, Coronado, California 92118
Reservation Center: 800-815-6397 Hotel Direct: 619-424-4000
Online: https://aws.passkey.com/go/2018EMSAAC

Rates & Reservations

Please make your own reservations and be sure to request the EMSAAC Conference reduced rate of $179 per night plus taxes. This low rate includes:

- Just 15-20 minutes from San Diego Airport
- Complimentary guestroom internet access
- Complimentary use of fitness center
- 15% discount off spa services from Sea Spa
- No resort fees
- Reduced parking rate of $15/day (Valet at $30/day)

A block of rooms will be held until April 17, 2024. After this date, reservations will be accepted on a space and rate available basis only. This conference rate will be honored 3 days before and 3 days after the conference dates, excluding suite rates, and subject to availability. Check-in time: 4pm

The Resort

Centered between the Pacific Ocean and Coronado Bay, the resort epitomizes the true southern California lifestyle. Taking full advantage of the resort's waterfront location, the new redesign artfully combines San Diego's sun and surf with the casual charm of southern California. Relax by one of three pools, stroll down the pristine Silver Strand State Beach, pamper yourself at the Sea Spa, sailing or boating on the bay or just enjoy a glass of wine sitting at the outdoor fire feature watching the sunset. Other resort activities include three tennis courts, a full service marina, bike rentals and a fleet of gondolas. The ideal setting for families, the hotel has a children's pool and a kids club offering a range of activities, including scavenger hunts and magic tricks (surcharges). The Resort is a Four Diamond Award hotel and listed as one of the Top 10 Best Hotels in San Diego!

Your Stay

Almost all of the 439 rooms have a water view, either bay or ocean views. The Amenities featured in guestrooms include air conditioning, minibars, and complimentary newspapers. Guestrooms have cable television with pay movies. Business-friendly amenities include multi-line phones, desks, and voice mail. Balconies are featured in all guestrooms. Bathrooms provide bathrobes and hair dryers.

Conference Program

DAY 1 - Wednesday, May 29, 2024

7:00 am
Registration and Visit Exhibitors
Continental Breakfast in Exhibit Hall

8:00 am - 8:10 am
Aloha and Good Morning "Kakahiaka"
Nick Clay, EMSAAC President
Director, Santa Barbara County EMS Agency

8:10 am - 8:15 am
State of the State
Elizabeth Basnett, Director
California EMS Authority

8:15 am - 9:15 am
KEYNOTE SPEAKER
Purposeful Inclusion: How EMS System Design Can Help Close the Health Equity Gap
Doug Wolfberg, Attorney

It's time for EMS systems to measure what matters. The decades-long focus on response times as a leading measure of system performance has consumed a disproportionate amount of time, energy and resources, for comparatively small clinical benefits. EMS systems need to sharpen their focus on measuring healthcare disparities and ensuring that EMS care is delivered equitably to all populations in an EOA or other EMS service area. In this session, national EMS attorney Doug Wolfberg will look at the opportunities to incorporate critical measures of health equity into EMS system design, and the legal, clinical and ethical underpinnings of this imperative.

9:15 am - 9:45 am
Break with Exhibitors

9:45 am - 10:30 am
Language Barriers in EMS
Dustin Ballard, MD
EMS Medical Director, Marin County EMS Agency

Language barriers lead to limited provider-patient communication. In the prehospital care setting, efficient and accurate communication promotes safety, rapid initial assessments, and appropriate decision-making for patient care. Effective communication increases trust between the patient and the provider and thus increased patient satisfaction and quality of care. Dr. Ballard will provide strategies and tools to improve effective EMS patient-provider communications

10:30 am - 11:30 pm
Autistic Patients and the First Responder
Paula Lafarge, RN, Los Angeles County
Fire Department

As autism spectrum becomes more prevalent (an estimated 1 in 68 children), it is important that first responders are cognizant of this disorder to prevent breakdown in patient care, rapport and communication both with the individual and the caregivers. The speaker will review the features and symptoms of autism as well as provide practical advice for the prehospital care setting.

11:30 am - 12:15 pm
Changes, Challenges and Compliance in EMS Billing & Reimbursement
Donna Hankins, Chair, CAA Payor Committee

One of the most challenging problems in EMS today actually occurs behind the scenes — ambulance billing and reimbursement. Join Donna Hankins, an expert in ambulance billing laws and reimbursement, to obtain a better understanding of what happens after the call is completed. Learn what current reimbursement concerns face ambulance transportation including changes in balance billing and rate approvals.

12:15 pm - 1:15 pm
Lunch "Aini" / Visiting Exhibitors

1:15 pm - 2:45 pm
Islands of Research

Moderators:
Karl Sporer, MD, Napa EMS Agency
Nichole Bosson, MD, LA EMS Agency

Organized by EMDAC, each year rave reviews are received for a panel of different researchers in the field of EMS who present data, trials or published papers keeping us abreast of the newest innovations and thinking backed by evidence-based foundations.

1) Blood on the Streets: The Seattle Whole Blood Experience
Catherine R. Counts, PhD, MHA
University of Washington and Seattle Fire

Dr. Counts will review the journey of Seattle Fire Department to implement a whole blood program. She will review the epidemiology of patients that have received whole blood and summarize ongoing analysis of the benefits to the trauma cohort using the Seattle Trauma Registry data.

2) EMS Response to Persons Experiencing Homelessness (PEH): Strategies for Squalor and Tactics for Tent Medicine
Tiffany Abramson, MD, Long Beach Fire Department
Stephen G. Sanko, MD, Los Angeles General Medical Center

In large and small cities alike, the economic fallout from the COVID-19 pandemic is exacerbating health inequities and increasing the number of patients experiencing homelessness. In the City of Los Angeles, PEH account for 0.5% of the population but 11% of EMS incidents and 15% of 911 transports. This lecture will describe the seminal work of two EMS Medical Directors working in ground zero of the homelessness crisis, and characterize both the number and nature of incidents, as well as the qualitative findings of interviews with EMS professionals and patients caught in the revolving door between the streets and the emergency department. Finally, the presenters will describe the results of a one-year collaboration with other community stakeholders to answer the question: What should radically patient-centered care for PEH look like?

3) Emerging Role of Artificial Intelligence in EMS
Jake Toy, MD
EMS Fellow, LA County EMS Agency

A growing body of literature exists describing the use of AI aimed to support dispatchers, EMS providers and ED-based

physicians. Dr. Toy will share his findings and applicability to the future of prehospital care.

2:45 pm - 3:15 pm
Break with Exhibitors

3:15 pm - 4:15 pm
Are We Family "Ohana"? Case Studies and Lessons Learned on EMS-Law Enforcement Relationships
Doug Wolfberg, Attorney

Recent cases where EMS practitioners and law enforcement personnel interacted and where bad outcome results have made headlines. In Illinois, two EMTs were charged with first degree murder after the positional asphyxia death of a patient. In Colorado, paramedics and law enforcement officers were charged with homicide after a patient died in custody following ketamine administration. Criminal charges and multiple employee terminations followed the death of an in-custody patient in Memphis. National EMS attorney Doug Wolfberg will use these and other cases to illustrate the imperative of inter-agency cooperation and, more importantly, inter-agency accountability between EMS and law enforcement.

4:15 pm - 4:30 pm
Day's Wrap Up

5:00 pm - 6:30 pm
Luau: President's Reception
Exhibit Hall (light hors d'oeuvres)

DAY 2 - Thursday, May 30, 2024

8:00 am
Visit Exhibitors
Continental Breakfast in Exhibit Hall

8:30 am - 9:00 am
Welcome "E Komo Mai" & EMS Leadership Award Nick Clay, EMSAAC President, Director, Santa Barbara County EMS Agency
Jeff Fariss, Conference Chair, EMS Program Manager, Kern County EMS Agency

9:00 am - 10:00 am
KEYNOTE SPEAKER
The EMS Profession - Challenges of Recruitment and Retention
Ashish R. Panchal, MD, PhD
NREMT

Throughout the nation there are reports of EMS workforce challenges and the desperate need for trained and certified ambulance personnel to provide lifesaving care. With these universal struggles, do we understand these dynamic workforce changes, the fundamental causes, and how we can begin to improve? This national renowned speaker will provide insight based on his experience as the Research and Fellowship Director at the NREMT.

10:00 am - 10:45 am
Break with Exhibitors

10:45 am - 11:45 am
Advances in 911 Response to Behavior Health and Substance Abuse Emergencies
Erick H. Cheung, MD
UCLA Resnick Neuropsychiatric Hospital

Through his leadership on the LA County EMS Commission, Dr. Cheung led a multi-year committee process to evaluate responses to patients suffering mental health and substance abuse disorders. He will share critical decision points, the extent of multi-agency responses, data collection on availability or lack of services, and recommended possible interventions.

11:45 am - 1:00 pm
Lunch "Aini" / Final Visit with Exhibitor

1:00 pm - 2:00 pm
Preparing For & Staging Special Events
Michael Cabano,
Others from Bay Area

Special events require pre-planning and pre-staging to ensure adequate first aid and emergency medical services. The Bay Area has experienced such large events as a Super Bowl, large concerts and Asian-Pacific Economic Cooperation (APEC). Hear from EMS and disaster specialists on defining risk assessments, developing overall coordination and communication, and safety of personnel involved, while not compromising day-to-day resources and operations.

2:00 pm – 3:00 pm
Burn MCI: Are We Ready "Makaukau"?
Jill Sproul, MS, RN, Santa Clara Valley Medical Center

A burn expert will discuss some of the prior burn mass casualty incidents in California as well focus on the 2023 Maui fires. Although not directly involved with the Maui response, she will be relaying information from those involved. In addition, she will discuss priorities of care and lessons learned from prior events and burn resources.

3:00 pm – 3:15 pm

Stretch Break

3:15 pm – 4:15 pm

Hospital Evacuation Experience
Mara C. Bryant, MBA, White Memorial Hospital
Representative, Los Angeles City Fire Department
Isabel Sanchez, Los Angeles County EMS Agency

What happens when the lights go out at a hospital? Hear from hospital, fire department and EMS agency personnel about the challenges faced when critical patients had to be transferred out of a major medical center in Los Angeles due to a significant power outage. Speakers will recount their experiences during the incident as well as share the planning and coordination processes every hospital should have as part of their emergency preparedness plans and key lessons learned.

4:15 pm

Until We Meet Again "A Hui Hou"
Final Raffles & Wrap Up

Keynote Speakers

Doug Wolfberg, EMS Attorney – Doug Wolfberg is a founding partner of Page, Wolfberg & Wirth, and one of the best known EMS attorneys and consultants in the United States. Widely regarded as the nation's leading EMS law firm, PWW represents private, public and non-profit EMS organizations, as well as billing companies, software manufacturers and others that serve the nation's ambulance industry. Doug answered his first ambulance call in 1978 and has been involved in EMS ever since. Doug became an EMT at age 16, and worked as an EMS provider in numerous volunteer and paid systems over the decades. Doug also served as an EMS educator and instructor for many years.

Doug is a known as an engaging and humorous public speaker at EMS conferences throughout the United States. He is also a prolific author, having written books, articles and columns in many of the industry's leading publications, and has been interviewed by national media outlets including National Public Radio and the Wall Street Journal on EMS issues. Doug is a Certified Ambulance Coder (CAC) and a founder of the National Academy of Ambulance Coding (NAAC). Doug also served as a Commissioner of the Commission on Accreditation of Ambulance Services (CAAS).

Ashish R. Panchel, MD, PhD – Ashish R. Panchal, MD, PhD is a Professor of Emergency Medicine at The Ohio State University Wexner Medical Center. Dr. Panchal is board certified in Emergency Medicine and Emergency Medical Services and is heavily involved in prehospital care as an EMS medical director and the Research and Fellowship Director for the National Registry of Emergency Medical Technicians. He serves as EMS Medical Director for Delaware County EMS and the Delaware County Dispatch Center as well as associate medical director for the Worthington Fire Department. Dr. Panchel is passionate about improving patient outcomes in the prehospital setting. His research focus areas include cardiac resuscitation, prehospital workforce and wellness.

Faculty

Tiffany Abramson, MD
Assistant Professor, EMS & Research
Department of Emergency Medicine
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Elizabeth Basnett
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Medical Director
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Mike Taigman, MA, FAEMS
Assistant Professor, UCSF
Improvement Guide, First Watch
San Leandro, California

Jake Toy, DO, MS
EMS Fellow
Los Angeles County EMS Agency
Los Angeles, California

CONFERENCE REGISTRATION

May 29 & 30, 2024
On Coronado Island

All registrations are taken ONLINE only at emsaac.org

Payments can be made by credit card, PayPal or through a PO or check. Confirmation and W-9 available on the website. Registration fees include all conference materials and food & beverage for breakfast and lunches.

CQI Pre-Conference (separate registration) **May 28, 11: am – 4:00 pm** Limited seating	$150
Investigation Pre-Conference (separate registration) **May 28, 11:00 am – 4:00 pm** Limited seating	$150
EARLY Conference Registration – if payment **received before midnight (MN) April 30** NOTE: The first 50 paid registrations will be entered into a raffle for a special door prize.	$450
Late or onsite Registraiton – received after MN April 30	$525
Conference Bundle – one pre-conference and conference registration – expires MN April 30. After April 30, individual prices apply at no reduced cost ($675 total).	$550
Virtual Registration – Zoom platform	$350

During the conference, EMSAAC will be accepting donations for the Maui First Responders to assist Firefighters, Lifeguards and Emergency Medical Technicians directly impacted by the Maui wildfires. Over 20 affected first responders have lost their homes to the fire. The Fund will partner with Maui agencies to distribute the funds to first responders.

Pre-Conferences May 28, 2024

11:00 am – 4:00 pm (light lunch included)

Re-Engineering Your CQI Program

- Kevin Mackey MD, Sacramento Fire & UCD
- Mike Taigman, Assistant Professor, UCSF
- Kris Mangano, EMS Coordinator, San Benito County EMS Agency

Last year's CQI pre-conference was a major success with both newcomers and seasoned veterans learning improvement science that is useful in designing and implementing meaningful quality improvement projects. In 2024, we are reshaping the course to a more case- based format cementing the key elements of a meaningful, well-designed improvement project. Some attendees from last year will be invited to present lessons learned and successes of projects that were launched since last year's course. Pre-reading will again be required. Attending with two or more members of your QI team will be the most effective investment of your time. Come ready to learn and ready to have fun!

11:00 am – 4:00 pm (light lunch included)

How to Conduct EMS Investigations

- Aaron Doyle, Prehospital Coordinator, Contra Costa EMS Agency
- Ben Keizer, Prehospital Coordinator, Contra Costa EMS Agency

There is no manual for when or how to conduct EMT disciplinary investigations. Whether you are from a Local EMS Agency or provider, this presentation will give an overview of the investigation process and the role of the provider, the LEMSA and even the EMS Authority if necessary. The presentation will cover how to: 1) conduct EMT and witness interviews, 2) gather information such as police reports, 3) prepare investigation reports, 4) process subsequent arrest notifications, and 5) report to the National Practitioner Data Bank and the Office of Inspector General. There will also be a discussion of when to move an investigation to a higher level and how to ensure the process can withstand scrutiny. All of this will be done using real examples of prior investigations as well as discussions of the attendees experiences.

Requires separate registration (see above)

Sponsors & Exhibitors

Many generous sponsors and exhibitors make the EMSAAC Conference possible. The conference is an outstanding opportunity to see the latest and greatest new EMS tools and applications as well as to meet the representatives and directly discuss material needs. The following is a list of sponsors and exhibitors to date; others will be joining this distinguished group:

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EMERGENCY MEDICAL SERVICES COMMISSION
PROVIDER AGENCY ADVISORY COMMITTEE

MINUTES
Wednesday, December 20, 2023

MEMBERSHIP / ATTENDANCE

	MEMBERS IN ATTENDANCE	ORGANIZATION
	Kenneth Powell, Chair	EMSC, Commissioner
X	Paul Rodriquez, Vice-Chair	EMSC, Commissioner
	Paul Espinosa	EMSC, Commissioner
	James Lott, PsyD, MBA	EMSC, Commissioner
	Robert Ower	EMSC, Commissioner
	Gary Washburn	EMSC, Commissioner
	Brian Bixler	EMSC, Commissioner
	John Hisserich	EMSC, Commissioner
	Jason Tarpley, MD	EMSC, Commissioner
X	Sean Stokes	Area A *(Rep to Medical Council)*
	Justin Crosson	Area A, Alternate
X	Keith Harter	Area B
	Clayton Kazan, MD	Area B, Alternate
	Todd Tucker	Area C
	Jeffrey Tsay	Area C, Alternate
	Kurt Buckwalter	Area E
	Ryan Jorgenson	Area E, Alternate
	Mick Hannan	Area F
	Andrew Reno	Area F, Alternate
	Adam Brown	Area G *(Rep to BHAC)*
	Jennifer Nulty	Area G, Alternate
X	Doug Zabilski	Area H
	Tyler Dixon	Area H, Alternate
	David Hahn	Area H, Alternate
X	Julian Hernandez	Employed Paramedic Coordinator
X	Tisha Hamilton	Employed Paramedic Coordinator, Alt
	Rachel Caffey	Prehospital Care Coordinator
	Jenny Van Slyke	Prehospital Care Coordinator, Alternate
	Pending	Public Sector Paramedic Coordinator
X	Paul Voorhees	Public Sector Paramedic Coordinator, Alt
	Maurice Guillen	Private Sector Paramedic
	Scott Buck	Private Sector Paramedic, Alternate
	Tabitha Cheng, MD	Provider Agency Medical Director
X	Tiffany Abramson, MD	Provider Agency Medical Director, Alt
	Andrew Lara	Private Sector Nurse Staffed Amb Program
	Jonathan Lopez	Private Sector Nurse Staffed Amb Program,
	Michael Kaduce	EMT Training Program
	Scott Jaeggi	EMT Training Program, Alternate
	Scott Atkinson	Paramedic Training Program
	David Filipp	Paramedic Training Program, Alternate
X	Adrienne Roel	EMS Educator
X	Caroline Jack	EMS Educator, Alternate

EMS AGENCY STAFF	EMS AGENCY STAFF
Richard Tadeo	Nichole Bosson, MD
Christine Clare	Denise Whitfield, MD
Jacqueline Riffenburg	Dipesh Patel, MD
Michael Kim, MD	Jake Toy, MD
Sam Calderon	Mark Ferguson
Aldrin Fontela	Han Na Kang
Laurie Lee-Brown	Laura Leyman
Nnabuike Nwanonenyi	Sara Rasnake
Priscilla Romero	Denise Watson
David Wells	Christine Zaiser
Paula Cho	Gary Watson

GUESTS	ORGANIZATION
Marc Cohen, MD	Multi-Agency Medical Director
Angie Loza-Gomez, MD	Area C Medical Director
Danielle Ogaz	LACoFD
Freddy Jimenez	Montebello FD
Carlos Garcia	Montebello FD
David Molyneux	AM West Ambulance
Jason Hansen	Pasadena FD
Jodi Slicker	Pasadena FD
Travis Corr	San Gabriel FD
Armando Jurado	Lifeline Ambulance
Alina Candal	PIH Health Whittier Hosp/ APCC
Freddy Jimenez	Montebello FD
Alfredo Estrado	Montebello FD
Ryan Cortina	Burbank FD
Kristina Crews	LACoFD
Errol Barrientos	Emergency Ambulance
Victor Lemus	Compton FD

1. CALL TO ORDER - Vice-Chair Paul Rodriguez called meeting to order at 1:10 p.m.

2. INTRODUCTIONS AND ANNOUNCEMENTS

2.1 Committee Member Retirements *(Richard Tadeo)*

- The EMS Agency Director announced the retirements of Paul Rodriguez (EMS Commissioner) and Doug Zabilski (Area H Representative).
- The EMS Agency expressed great appreciation for their dedication to this Committee and the LA County EMS system. Certificates of Appreciation were presented.

2.2 Medical Director for Education and Innovation *(Richard Tadeo)*

EMS Agency Director announced the appointment of Dr. Shira Schlesinger, as the EMS Agency's Medical Director for Education and Innovation.

3. **APPROVAL OF MINUTES (Zabilski / Voorhees)** October 18, 2023, minutes were approved as written.

4. **REPORTS & UPDATES**

4.1 PediDose Trial *(Nichole Bosson, MD)*

- Enrollments continue with over 250 participants enrolled.
- Providers are encouraged to continue identifying and enrolling those who are eligible. Reminder that enrollment needs to be completed within 7 days of patient contact.
- Paramedics enrolling patients into this Trial now have a chance to win 4 gift cards per entry per month, vs the previous 1 gift card per entry per month.
- Reminder to paramedics, please choose the correct Provider Impression when enrolling the pediatric seizure patients. Enrollments include patients who either fall under the Provider Impression of Seizure – Active (SEAC) or Seizure - Postictal (SEPI).

4.2 Pedi-PART (Trial) *(Nichole Bosson, MD)*

- This Pediatric Prehospital Airway Resuscitation Trial compares bag-mask ventilation strategy followed by early transition to igel, for management of pediatric airway in the prehospital setting.
- Once the EMS Agency receives final approval from the State, the next step will be to send out surveys and post a webinar, informing the public and EMS community of this Trial; and allow for any feedback.
- Training will be incorporated into EMS Update 2024 and will require hands-on skills.
- Prior to implementation, providers must have at least 90% of their active paramedics complete the asynchronous module and at least 25% of the active paramedics must have completed the hands-on skills portion. Hands-on training completion date will be set for August 1, 2024.
- To assist with this Trial, the EMS Agency is seeking information on how providers store their cardiac monitor data. In mid-December a survey was sent to all public providers requesting this information. Providers are reminded to please complete this survey as soon as possible.

4.3 Research Initiatives and Pilot Studies *(Nichole Bosson, MD)*

- ECMO – enrollment continues.
- Data Collaboratives
    - SRC – Recently published a research article regarding the ability to get STEMI patients to the cardiac catheterization lab during the COVID-19 pandemic, which was published in the American Journal of Cardiology.
    - Pediatric – recently launched this new Data Collaborative, with the goal of focusing on how to collaborate between agencies and other institutions to look at pediatric outcomes.

4.4 EMS Update 2023 / 2024 *(Denise Whitfield, MD)*

- EMS Update 2023 is complete and included the training on administration of TXA and monitoring blood products.
- Topics for EMS Update 2024 include Pedi-PART (as discussed above), Medical Control Guideline: EMS and Law Enforcement Co-Response, and potentially Pedi-Dose phase 2. EMS Update committee will convene in January 2024.
- Proposed train-the-trainer dates are April 1st and April 3rd. Completion date for EMS Update will be June 30, 2024.

4.5 ITAC Update *(Denise Whitfield, MD)*

- Committee last met on November 6, 2023, and reviewed one device (Infant Transport Mattress Warmer) which is currently being used by Pasadena FD. After review, this Committee recommended item to be placed on the inventory lists as “Optional” equipment.

4.6 EmergiPress *(Denise Whitfield, MD)*

- Currently working on the next EmergiPress. Plan to be posted on the EMS Agency's webpage before the end of the year.
- Topics include ECG/Toxicology and TXA administration.

4.7 California Office of Traffic Safety (OTS) Grants *(Nichole Bosson, MD / Shira Schlesinger, MD)*

The EMS Agency received two grants from OTS to support initiatives in reducing injuries from pedestrian accidents and post-crash care.

4.7.1 Mobile Application Grant

- This grant is to build a mobile application that would provide access to all LA County treatment protocols and policies in real time and will include "just in time" treatment videos. The workgroup meets monthly for feedback and to assist with the development of this application. This is a 1-year grant which will end in October 2024.

4.7.2 Curriculum Development on Injury Prevention and Post-Crash Care

- The second grant is to support the Health Data Exchange use of data, to identify key metrics for our trauma care, particularly related to vehicular accidents and pedestrian accidents. The EMS Agency, in partnership with the Lundquist Institute, will convene a workgroup to drive the research in post-crash care and injury prevention; and develop an educational curriculum around these topics.
- The EMS Agency will be sending out invitations requesting participation in the workgroup to identify educational needs.

4.8 Medication Cache *(Denise Whitfield, MD)*

- Due to ongoing nationwide shortages of several medications and to better assist provider agencies during these shortages, the EMS Agency will be restructuring the current disaster warehouse medication cache, with a focus on the most critical medications.
- More information will be provided once this project is complete.
- Providers are encouraged to continue following the mitigation strategies described in Reference No. 701, Supply and Resupply of Designated EMS Provider Units/Vehicles, during medication shortages and prior to requesting EMS Agency assistance.

4.9 EMS for Children Pediatric Readiness Assessment for Provider Agencies *(Chris Clare)*

- Every few years the National Pediatric Readiness Program sends out a survey to all public providers, asking questions on the general care of the pediatric patient. The next survey will be sent out in early 2024 by the EMS Authority. The EMS Agency asks all public providers to participate.

5. UNFINISHED BUSINESS

There is no unfinished business.

6. NEW BUSINESS

The following policy was reviewed; Action Required:

6.1 Reference No. 420, Private Ambulance Operator Medical Director *(David Wells)*

The following policy was reviewed; No Action required:

6.4 Reference No. 1307.4, MCG: EMS and Law Enforcement Co-Response *(Nichole Bosson, MD)*

- Policy reviewed as information only.
- After review, the policy was tabled. This Committee requested additional clarity of language from the taskforce. The next taskforce meeting is scheduled for January 8, 2024. Policy will return to this Committee on February 14, 2024.

TABLED: Reference No. 1307.4, MCG: EMS and Law Enforcement Co-Response

7. OPEN DISCUSSION

7.1 Health Data Exchange *(Richard Tadeo)*

- Based on the scoring of the Measure B Funding Advisory Board, the EMS Agency is confident this project will receive the needed funding that would enable the development of bi-directional software that would move prehospital data into a hospital's electronic patient care system. This would also allow providers to receive patient outcome data and patient financial data. Specific outcome data is still to be determined.
- Funding will be available for the fiscal year 2024-2025.
- Phases of this project will include LA County's trauma and base hospitals; all specialty hospitals; and then all other hospitals.
- Measure B funds will include the initial annual subscriptions for all EMS providers.
- The EMS Agency will be contacting providers once hospitals are on board.

7.2 PEDI-Dose Preparation: Cardiac Monitor Survey *(Nichole Bosson, MD)*

- Dr. Bosson thanked several providers for completing the cardiac monitor survey, which is needed for the preparation of the PEDI-Dose Trial. This survey was sent out to providers on December 12, 2023. A reminder will be sent after today's meeting.
- PEDI-Dose : Recognition given to Arcadia Fire Department for having 100% completion rate of the paramedic self-report; and eight other providers were recognized for completing the self-report more than 50% of the time. All other providers were encouraged to be diligent in completing the paramedic self-reports after each pediatric seizure response.

8. NEXT MEETING – February 14, 2024

9. ADJOURNMENT - Meeting adjourned at 2:06 p.m.

MEDICAL CONTROL GUIDELINE: COLOR CODE DRUG DOSES

PRINCIPLES:

1. Correct dosing of medications based on weight in kilograms is a safety concern for delivery of medications to children and adults in the prehospital setting.

2. To optimize safety in dosing medications for children and adults, a standard formulary has been created. This ***Color Code Drug Doses*** medical control guideline pre-calculates all doses based on kilogram weight for children and an adult dose including maximum dose is delineated.

3. EMS provider agencies shall procure medications and stock approved Assessment and ALS Units in accordance with the drug formulation specified in this medical control guideline.

4. The Color Code Drug Doses and the Treatment Protocols shall be used to determine drug doses.

GUIDELINES:

1. EMS providers shall utilize a length-based resuscitation tape (i.e., Broselow™) to determine weight in kilograms and color code of children less than or equal to 14 years of age.

2. EMS providers shall use this guideline to determine dose of medication for children 3 to 36 kilograms. Documentation of dose will be in mgs and in mLs.

3. EMS providers contacting the base hospital shall report and document the appropriate color code and weight in kilograms utilizing a length-based resuscitation tape (i.e., Broselow™).

4. Base hospital personnel shall use this guideline to order dose of medication for children 3 to 36 kilograms; all doses will be given in mg and mLs.

5. Adult dosing will be used for children who are measured to be longer than the length-based resuscitation tape.

DRUG FORMULATIONS:

MEDICATION	FORMULATION	DOSAGE	Maximum Single Dose
Adenosine	3mg/mL	0.1mg/kg Repeat dose 0.2mg/kg	12mg
Albuterol	2.5mg/3mL	2.5mg <4 years; 5mg ≥4 years	5mg
Albuterol MDI	90 mcg/puff	2 puffs <4 years; 4 puffs ≥4 years	360 mcg
Amiodarone	50mg/mL	5mg/kg	300mg
Atropine	0.1mg/mL	0.02mg/kg	1mg (adult) 0.5mg (pediatric)
Calcium Chloride (dilute 1:1 with NS if <1year)	100mg/mL	20mg/kg	1gm
Dextrose 10%	0.1gm/mL	5mL/kg*	250mL

≤24kg: Dextrose 10% in water, 5mL/kg IV/IO in 1mL/kg increments, reassess for clinical improvement after every 1mL/kg. Administer slow IVP. May repeat as needed, maximum total dose 5mL/kg. Recheck glucose prn after 3mL/kg infused

>24 kg: Dextrose 10% in water, administer 125mL IVPB/IO and reassess, continue infusion as needed with maximum dose of 5mL/kg

Diphenhydramine	50mg/mL	1mg/kg	50mg
DuoDote™ (Pralidoxime Chloride)	Auto injector	1 DuoDote™	3 DuoDotes™
Epinephrine **(Push Dose) 0.1mg/mL IV**	0.01mg/mL	0.1mL/kg every 1-5 mins	10mcg (1 mL)

Mix 9mL of normal saline with 1mL of epinephrine 0.1mg/mL (IV epi) in a 10mL syringe to create epinephrine 0.01mg/mL, administer 0.1mL/kg (up to 1 mL at a time) every 1-5 mins to maintain adequate SBP.

Epinephrine **0.1mg/mL IV**	0.1mg/mL	0.01mg/kg	1mg
Epinephrine **1mg/mL IM**	1mg/mL	0.01mg/kg	0.5mg
Epinephrine **1mg/mL Nebulized (NEB)**	1mg/mL	2.5mg <1 year; 5mg ≥1 year	5mg (5mL)
Fentanyl **IV/IM**	50mcg/mL	1mcg/kg	50mcg
Fentanyl **IN**	50mcg/mL	1.5mcg/kg	50mcg
Glucagon	1mg/mL	0.5 mg <1 year; 1mg ≥1 year	1mg
Glucopaste (4 years or older)	15gm	15gm	15gm
Ketorolac **slow IV/IO push**	15mg/mL	0.5mg/kg	15mg
Ketorolac **IM (Adult)**	15mg/mL	1mg/kg	30mg
Ketorolac **IM (Pediatric)**	15mg/mL	0.5mg/kg ≥4 years	15mg
Lidocaine 2% **(IO ONLY)**	20mg/mL	0.5 mg/kg	40mg

MEDICATION	FORMULATION	DOSAGE	Maximum Single Dose
Midazolam Agitation/Sedation **IV/IO**	5mg/mL	0.1mg/kg	5mg
Midazolam Agitation/Sedation **IN/IM**	5mg/mL	0.2mg/kg	5mg
Midazolam Seizure 0-16 mo **IN/IM**	5mg/mL	0.2mg/kg	2.2mg
Midazolam Seizure ≥17mo **IN/IM**	5mg/mL	PediDOSE* 17months-5 years: 2.5mg 6-11 years: 5mg ≥12 years: 10mg	2.5mg, 5mg, or 10mg depending on age
Morphine Sulfate **IV/IM/IO**	4mg/mL	0.1mg/kg	4mg
Naloxone	1mg/mL	0.1mg/kg	2mg
Normal Saline	0.9% Na Cl	20mL/kg	1L
Nitroglycerin SL (adults only)	0.4mg	0.4mg	1.2mg
Olanzapine ODT	10mg	10mg	10mg
Ondansetron ODT/IV/IM	4mg tab or (4 years or older ODT only) 2mg/mL IV/IM (adults only)	4mg	4mg
Sodium Bicarbonate IV (dilute 1:1 with NS if <1year)	1mEq/mL	1mEq/kg	50mEq
Tranexamic Acid (TXA)	1gm/10mL	1gm/10mL	1gm in 50 or 100mL infused over 10 minutes

***PediDOSE Midazolam IN/IM only - dosing chart for treatment of seizures**

Age	0-16 months	17 months – 5 years	6-11 years	≥12 years
Midazolam Dose IN/IM	0.2mg/kg	2.5 mg	5 mg	10 mg
Volume IN/IM	See color code	0.5 mL	1mL	2mL
If age unknown				

COLOR CODE DRUG DOSES:

3 Kg

Length 47 – 59.5 cm			**Less than 3 months**		
Normal Vital Signs:	Heart Rate: 100-180		Respirations: 30-60	Systolic BP: >60	
Cardioversion:	3 joules		6 joules	6 joules	
Defibrillation:	6 joules		12 joules	12 joules	
Supraglottic Airway:	igel	Size 1	No gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	0.3mg	**0.1mL**	Fentanyl **IV/IM**	3mcg	**0.06mL**
Albuterol NEB	2.5mg	**3mL**	Fentanyl **IN**	4.5mcg	**0.09mL**
Amiodarone	15mg	**0.3mL**	Glucagon IM	0.5mg	**0.5mL**
Atropine	0.06mg	**0.6mL**	Lidocaine 2% IO	1.5mg	**0.08mL**
Calcium Chloride*	60mg	**0.6mL**	Midazolam Agitation/Sedation **IV/IO**	0.3mg	**0.06mL**
Dextrose 10% slow IV	15mL	**15mL**	Midazolam Agitation/Sedation **IN/IM**	0.6mg	**0.12mL**
Diphenhydramine IV/IM	3mg	**0.06mL**	Midazolam Seizure 0-16mo **IN/IM**	0.6mg	**0.12mL**
DuoDote™	1 dose	**NA**	Morphine IV/IM/IO	0.3mg	**0.08mL**
Epinephrine **Push Dose**	3mcg	**0.3mL**	Naloxone IV/IM/IN	0.3mg	**0.3mL**
Epinephrine **0.1mg/mL IV**	0.03mg	**0.3mL**	Normal Saline IV Bolus	60mL	**60mL**
Epinephrine **1mg/mL IM**	0.03mg	**0.03mL**	Sodium Bicarbonate*	3mEq	**3mL**
Epinephrine **1mg/mL NEB**	2.5mg	**2.5mL**		*Dilute 1:1 with NS	

GREY

4 Kg

Length 47 – 59.5 cm			**Less than 3 months**		
Normal Vital Signs:	Heart Rate: 100-180		Respirations: 30-60	Systolic BP: >60	
Cardioversion:	4 joules		8 joules	8 joules	
Defibrillation:	8 joules		16 joules	16 joules	
Supraglottic Airway:	igel	Size 1	No gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	0.4mg	**0.13mL**	Fentanyl **IV/IM**	4mcg	**0.08mL**
Albuterol NEB	2.5mg	**3mL**	Fentanyl **IN**	6mcg	**0.12mL**
Amiodarone	20mg	**0.4mL**	Glucagon IM	0.5mg	**0.5mL**
Atropine	0.08mg	**0.8mL**	Lidocaine 2% IO	2mg	**0.1mL**
Calcium Chloride*	80mg	**0.8mL**	Midazolam Agitation/Sedation **IV/IO**	0.4mg	**0.08mL**
Dextrose 10% slow IV	20mL	**20mL**	Midazolam Agitation/Sedation **IN/IM**	0.8mg	**0.16mL**
Diphenhydramine IV/IM	4mg	**0.08mL**	Midazolam Seizure 0-16mo **IN/IM**	0.8mg	**0.16mL**
DuoDote™	1 dose	**NA**	Morphine IV/IM/IO	0.4mg	**0.1mL**
Epinephrine **Push Dose**	4mcg	**0.4mL**	Naloxone IV/IM/IN	0.4mg	**0.4mL**
Epinephrine **0.1mg/mL IV**	0.04mg	**0.4mL**	Normal Saline IV Bolus	80mL	**80mL**
Epinephrine **1mg/mL IM**	0.04mg	**0.04mL**	Sodium Bicarbonate*	4mEq	**4mL**
Epinephrine **1mg/mL NEB**	2.5mg	**2.5mL**		*Dilute 1:1 with NS	

GREY

5Kg

Length 47 – 59.5 cm			**Less than 3 months**		
Normal Vital Signs:	Heart Rate: 100-180		Normal Vital Signs:	Heart Rate: 100-180	
Cardioversion:	5 joules		10 joules	10 joules	
Defibrillation:	10 joules		20 joules	20 joules	
Supraglottic Airway:	igel	Size 1	No gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	0.5mg	**0.17mL**	Fentanyl **IV/IM**	5mcg	**0.1mL**
Albuterol NEB	2.5mg	**3mL**	Fentanyl **IN**	7.5mcg	**0.15mL**
Amiodarone	25mg	**0.5mL**	Glucagon IM	0.5mg	**0.5mL**
Atropine	0.1mg	**1mL**	Lidocaine 2% IO	2.5mg	**0.12mL**
Calcium Chloride*	100mg	**1mL**	Midazolam Agitation/Sedation **IV/IO**	0.5mg	**0.1mL**
Dextrose 10% slow IV	25mL	**25mL**	Midazolam Agitation/Sedation **IN/IM**	1mg	**0.2mL**
Diphenhydramine IV/IM	5mg	**0.1mL**	Midazolam Seizure 0-16mo **IN/IM**	1mg	**0.2mL**
DuoDote™	1 dose	**NA**	Morphine IV/IM/IO	0.5mg	**0.12mL**
Epinephrine **Push Dose**	5mcg	**0.5mL**	Naloxone IV/IM/IN	0.5mg	**0.5mL**
Epinephrine **0.1mg/mL IV**	0.05mg	**0.5mL**	Normal Saline IV Bolus	100mL	**100mL**
Epinephrine **1mg/mL IM**	0.05mg	**0.05mL**	Sodium Bicarbonate*	5mEq	**5mL**
Epinephrine **1mg/mL NEB**	2.5mg	**2.5mL**		*Dilute 1:1 with NS	

GREY

6 Kg — **PINK**

Length 59.5 – 62 cm			**3 – 4 months**		
Normal Vital Signs:	**Heart Rate:** 100-160		**Respirations:** 25-40	**Systolic BP:** >70	
Cardioversion:	6 joules		12 joules	12 joules	
Defibrillation:	12 joules		24 joules	24 joules	
Supraglottic Airway:	igel	Size 1.5	10 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	0.6mg	**0.2mL**	Fentanyl **IV/IM**	6mcg	**0.12mL**
Albuterol NEB	2.5mg	**3mL**	Fentanyl **IN**	9mcg	**0.18mL**
Amiodarone	30mg	**0.6mL**	Glucagon IM	0.5mg	**0.5mL**
Atropine	0.12mg	**1.2mL**	Lidocaine 2% IO	3mg	**0.15mL**
Calcium Chloride*	120mg	**1.2mL**	Midazolam Agitation/Sedation **IV/IO**	0.6mg	**0.12mL**
Dextrose 10% slow IV	30mL	**30mL**	Midazolam Agitation/Sedation **IN/IM**	1.2mg	**0.24mL**
Diphenhydramine IV/IM	6mg	**0.12mL**	Midazolam Seizure 0-16mo **IN/IM**	1.2mg	**0.24mL**
DuoDote™	1 dose	**NA**	Morphine IV/IM/IO	0.6mg	**0.15mL**
Epinephrine **Push Dose**	6mcg	**0.6mL**	Naloxone IV/IM/IN	0.6mg	**0.6mL**
Epinephrine **0.1mg/mL IV**	0.06mg	**0.6mL**	Normal Saline IV Bolus	120mL	**120mL**
Epinephrine **1mg/mL IM**	0.06mg	**0.06mL**	Sodium Bicarbonate*	6mEq	**6mL**
Epinephrine **1mg/mL NEB**	2.5mg	**2.5mL**		*Dilute 1:1 with NS	

7 Kg — **PINK**

Length 62 – 66 cm			**5 – 6 months**		
Normal Vital Signs:	**Heart Rate:** 100-160		**Respirations:** 25-40	**Systolic BP:** >70	
Cardioversion:	7 joules		14 joules	14 joules	
Defibrillation:	14 joules		28 joules	28 joules	
Supraglottic Airway:	igel	Size 1.5	10 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	0.7mg	**0.23mL**	Fentanyl **IV/IM**	7mcg	**0.14mL**
Albuterol NEB	2.5mg	**3mL**	Fentanyl **IN**	10.5mcg	**0.21mL**
Amiodarone	35mg	**0.7mL**	Glucagon IM	0.5mg	**0.5mL**
Atropine	0.14mg	**1.4mL**	Lidocaine 2% IO	3.5mg	**0.18mL**
Calcium Chloride*	140mg	**1.4mL**	Midazolam Agitation/Sedation **IV/IO**	0.7mg	**0.14mL**
Dextrose 10% slow IV	35mL	**35mL**	Midazolam Agitation/Sedation **IN/IM**	1.4mg	**0.28mL**
Diphenhydramine IV/IM	7mg	**0.14mL**	Midazolam Seizure 0-16mo **IN/IM**	1.4mg	**0.28mL**
DuoDote™	1 dose	**NA**	Morphine IV/IM/IO	0.7mg	**0.18mL**
Epinephrine **Push Dose**	7mcg	**0.7mL**	Naloxone IV/IM/IN	0.7mg	**0.7mL**
Epinephrine **0.1mg/mL IV**	0.07mg	**0.7mL**	Normal Saline IV Bolus	140mL	**140mL**
Epinephrine **1mg/mL IM**	0.07mg	**0.07mL**	Sodium Bicarbonate*	7mEq	**7mL**
Epinephrine **1mg/mL NEB**	2.5mg	**2.5mL**		*Dilute 1:1 with NS	

8 Kg

Length 66 – 69.5 cm			**7 - 8 months**		
Normal Vital Signs:	**Heart Rate:** 100-160		**Respirations:** 20-40	**Systolic BP:** >70	
Cardioversion:	8 joules		16 joules	16 joules	
Defibrillation:	16 joules		32 joules	32 joules	
Supraglottic Airway:	igel	Size 1.5	10 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	0.8mg	**0.27mL**	Fentanyl **IV/IM**	8mcg	**0.16mL**
Albuterol NEB	2.5mg	**3mL**	Fentanyl **IN**	12mcg	**0.24mL**
Amiodarone	40mg	**0.8mL**	Glucagon IM	0.5mg	**0.5mL**
Atropine	0.16mg	**1.6mL**	Lidocaine 2% IO	4mg	**0.2mL**
Calcium Chloride*	160mg	**1.6mL**	Midazolam Agitation/Sedation **IV/IO**	0.8mg	**0.16mL**
Dextrose 10% slow IV	40mL	**40mL**	Midazolam Agitation/Sedation **IN/IM**	1.6mg	**0.32mL**
Diphenhydramine IV/IM	8mg	**0.16mL**	Midazolam Seizure 0-16mo **IN/IM**	1.6mg	**0.32mL**
DuoDote™	1 dose	**NA**	Morphine IV/IM/IO	0.8mg	**0.2mL**
Epinephrine **Push Dose**	8mcg	**0.8mL**	Naloxone IV/IM/IN	0.8mg	**0.8mL**
Epinephrine **0.1mg/mL IV**	0.08mg	**0.8mL**	Normal Saline IV Bolus	160mL	**160mL**
Epinephrine **1mg/mL IM**	0.08mg	**0.08mL**	Sodium Bicarbonate*	8mEq	**8mL**
Epinephrine **1mg/mL NEB**	2.5mg	**2.5mL**		*Dilute 1:1 with NS	

RED

9 Kg

Length 69 – 73 cm			**9 – 10 months**		
Normal Vital Signs:	**Heart Rate:** 100-160		**Respirations:** 20-40	**Systolic BP:** >70	
Cardioversion:	9 joules		18 joules	18 joules	
Defibrillation:	18 joules		36 joules	36 joules	
Supraglottic Airway:	igel	Size 1.5	10 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	0.9mg	**0.3mL**	Fentanyl **IV/IM**	9mcg	**0.18mL**
Albuterol NEB	2.5mg	**3mL**	Fentanyl **IN**	13.5mcg	**0.27mL**
Amiodarone	45mg	**0.9mL**	Glucagon IM	0.5mg	**0.5mL**
Atropine	0.18mg	**1.8mL**	Lidocaine 2% IO	4.5mg	**0.22mL**
Calcium Chloride*	180mg	**1.8mL**	Midazolam Agitation/Sedation **IV/IO**	0.9mg	**0.18mL**
Dextrose 10% slow IV	45mL	**45mL**	Midazolam Agitation/Sedation **IN/IM**	1.8mg	**0.36mL**
Diphenhydramine IV/IM	9mg	**0.18mL**	Midazolam Seizure 0-16mo **IN/IM**	1.8mg	**0.36mL**
DuoDote™	1 dose	**NA**	Morphine IV/IM/IO	0.9mg	**0.22mL**
Epinephrine **Push Dose**	9mcg	**0.9mL**	Naloxone IV/IM/IN	0.9mg	**0.9mL**
Epinephrine **0.1mg/mL IV**	0.09mg	**0.9mL**	Normal Saline IV Bolus	180mL	**180mL**
Epinephrine **1mg/mL IM**	0.09mg	**0.09mL**	Sodium Bicarbonate*	9mEq	**9mL**
Epinephrine **1mg/mL NEB**	2.5mg	**2.5mL**		*Dilute 1:1 with NS	

RED

10 Kg — **PURPLE**

Length 73 – 78 cm			**11 – 14 months**		
Normal Vital Signs:	Heart Rate: 90-140		Respirations: 24-40	Systolic BP: >70	
Cardioversion:	10 joules		20 joules	20 joules	
Defibrillation:	20 joules		40 joules	40 joules	
Supraglottic Airway:	igel	Size 1.5	10 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	1mg	**0.33mL**	Fentanyl **IV/IM**	10mcg	**0.2mL**
Albuterol NEB	2.5mg	**3mL**	Fentanyl **IN**	15mcg	**0.3mL**
Amiodarone	50mg	**1mL**	Glucagon IM	1mg	**1mL**
Atropine	0.2mg	**2mL**	Lidocaine 2% IO	5mg	**0.25mL**
Calcium Chloride	200mg	**2mL**	Midazolam Agitation/Sedation **IV/IO**	1mg	**0.2mL**
Dextrose 10% slow IV	50mL	**50mL**	Midazolam Agitation/Sedation **IN/IM**	2mg	**0.4mL**
Diphenhydramine IV/IM	10mg	**0.2mL**	Midazolam Seizure 0-16mo **IN/IM**	2mg	**0.4mL**
DuoDote™	1 dose	**NA**	Midazolam Seizure ≥17mo **IN/IM**	PediDOSE	-
Epinephrine **Push Dose**	10mcg	**1mL**	Morphine IV/IM/IO	1mg	**0.25mL**
Epinephrine **0.1mg/mL IV**	0.1mg	**1mL**	Naloxone IV/IM/IN	1mg	**1mL**
Epinephrine **1mg/mL IM**	0.1mg	**0.1mL**	Normal Saline IV Bolus	200mL	**200mL**
Epinephrine **1mg/mL NEB**	5mg	**5mL**	Sodium Bicarbonate*	10mEq	**10mL**

*Dilute 1:1 with NS

11 Kg — **PURPLE**

Length 78 – 83 cm			**15 – 18 months**		
Normal Vital Signs:	Heart Rate: 90-140		Respirations: 24-40	Systolic BP: >70	
Cardioversion:	11 joules		22 joules	22 joules	
Defibrillation:	22 joules		44 joules	44 joules	
Supraglottic Airway:	igel	Size 1.5	10 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	1.1mg	**0.37mL**	Fentanyl **IV/IM**	11mcg	**0.22mL**
Albuterol NEB	2.5mg	**3mL**	Fentanyl **IN**	16.5mcg	**0.33mL**
Amiodarone	55mg	**1.1mL**	Glucagon IM	1mg	**1mL**
Atropine	0.22mg	**2.2mL**	Lidocaine 2% IO	5.5mg	**0.28mL**
Calcium Chloride	220mg	**2.2mL**	Midazolam Agitation/Sedation **IV/IO**	1.1mg	**0.22mL**
Dextrose 10% slow IV	55mL	**55mL**	Midazolam Agitation/Sedation **IN/IM**	2.2mg	**0.44mL**
Diphenhydramine IV/IM	11mg	**0.22mL**	Midazolam Seizure 0-16mo **IN/IM**	2.2mg	**0.44mL**
DuoDote™	1 dose	**NA**	Midazolam Seizure ≥17mo **IN/IM**	PediDOSE	-
Epinephrine **Push Dose**	10mcg	**1mL**	Morphine IV/IM/IO	1.1mg	**0.28mL**
Epinephrine **0.1mg/mL IV**	0.11mg	**1.1mL**	Naloxone IV/IM/IN	1.1mg	**1.1mL**
Epinephrine **1mg/mL IM**	0.11mg	**0.11mL**	Normal Saline IV Bolus	220mL	**220mL**
Epinephrine **1mg/mL NEB**	5mg	**5mL**	Sodium Bicarbonate	11mEq	**11mL**

12 Kg — YELLOW

Length 83 – 94.5 cm			**19 -35 months**		
Normal Vital Signs:	**Heart Rate:** 90-140		**Respirations:** 20-30	**Systolic BP:** >70	
Cardioversion:	12 joules		24 joules	24 joules	
Defibrillation:	24 joules		48 joules	48 joules	
Supraglottic Airway:	igel	Size 2	12 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	1.2mg	**0.4mL**	Fentanyl **IV/IM**	12mcg	**0.24mL**
Albuterol NEB	2.5mg	**3mL**	Fentanyl **IN**	18mcg	**0.36mL**
Amiodarone	60mg	**1.2mL**	Glucagon IM	1mg	**1mL**
Atropine	0.24mg	**2.4mL**	Lidocaine 2% IO	6mg	**0.3mL**
Calcium Chloride	240mg	**2.4mL**	Midazolam Agitation/Sedation **IV/IO**	1.2mg	**0.24mL**
Dextrose 10% slow IV	60mL	**60mL**	Midazolam Agitation/Sedation **IN/IM**	2.4mg	**0.48mL**
Diphenhydramine IV/IM	12mg	**0.24mL**	Midazolam Seizure ≥17mo **IN/IM**	PediDose	-
DuoDote™	1 dose	**NA**	Morphine IV/IM/IO	1.2mg	**0.3mL**
Epinephrine **Push Dose**	10mcg	**1mL**	Naloxone IV/IM/IN	1.2mg	**1.2mL**
Epinephrine **0.1mg/mL IV**	0.12mg	**1.2mL**	Normal Saline IV Bolus	240mL	**240mL**
Epinephrine **1mg/mL IM**	0.12mg	**0.12mL**	Sodium Bicarbonate	12mEq	**12mL**
Epinephrine **1mg/mL NEB**	5mg	**5mL**			

13 Kg — YELLOW

Length 83 – 94.5 cm			**19 -35 months**		
Normal Vital Signs:	**Heart Rate:** 90-140		**Respirations:** 20-30	**Systolic BP:** >70	
Cardioversion:	13 joules		26 joules	26 joules	
Defibrillation:	26 joules		52 joules	52 joules	
Supraglottic Airway:	igel	Size 2	12 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	1.3mg	**0.43mL**	Fentanyl **IV/IM**	13mcg	**0.26mL**
Albuterol NEB	2.5mg	**3mL**	Fentanyl **IN**	19.5mcg	**0.39mL**
Amiodarone	65mg	**1.3mL**	Glucagon IM	1mg	**1mL**
Atropine	0.26mg	**2.6mL**	Lidocaine 2% IO	6.5mg	**0.32mL**
Calcium Chloride	260mg	**2.6mL**	Midazolam Agitation/Sedation **IV/IO**	1.3mg	**0.26mL**
Dextrose 10% slow IV	65mL	**65mL**	Midazolam Agitation/Sedation **IN/IM**	2.6mg	**0.52mL**
Diphenhydramine IV/IM	13mg	**0.26mL**	Midazolam Seizure ≥17mo **IN/IM**	PediDose	-
DuoDote™	1 dose	**NA**	Morphine IV/IM/IO	1.3mg	**0.32mL**
Epinephrine **Push Dose**	10mcg	**1mL**	Naloxone IV/IM/IN	1.3mg	**1.3mL**
Epinephrine **0.1mg/mL IV**	0.13mg	**1.3mL**	Normal Saline IV Bolus	260mL	**260mL**
Epinephrine **1mg/mL IM**	0.13mg	**0.13mL**	Sodium Bicarbonate	13mEq	**13mL**
Epinephrine **1mg/mL NEB**	5mg	**5mL**			

14 Kg	**Length 83 – 94.5 cm**			**19 -35 months**			YELLOW
	Normal Vital Signs:	**Heart Rate:** 90-140		**Respirations:** 20-30	**Systolic BP:** >70		
	Cardioversion:	14 joules		28 joules	28 joules		
	Defibrillation:	28 joules		56 joules	56 joules		
	Supraglottic Airway:	igel	Size 2	12 F gastric suction catheter			
	Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**	
	Adenosine	1.4mg	**0.47mL**	Fentanyl **IV/IM**	14mcg	**0.28mL**	
	Albuterol NEB	2.5mg	**3mL**	Fentanyl **IN**	21mcg	**0.42mL**	
	Amiodarone	70mg	**1.4mL**	Glucagon IM	1mg	**1mL**	
	Atropine	0.28mg	**2.8mL**	Lidocaine 2% IO	7mg	**0.35mL**	
	Calcium Chloride	280mg	**2.8mL**	Midazolam Agitation/Sedation **IV/IO**	1.4mg	**0.28mL**	
	Dextrose 10% slow IV	70mL	**70mL**	Midazolam Agitation/Sedation **IN/IM**	2.8mg	**0.56mL**	
	Diphenhydramine IV/IM	14mg	**0.28mL**	Midazolam Seizure ≥17mo **IN/IM**	PediDose	-	
	DuoDote™	1 dose	**NA**	Morphine IV/IM/IO	1.4mg	**0.35mL**	
	Epinephrine **Push Dose**	10mcg	**1mL**	Naloxone IV/IM/IN	1.4mg	**1.4mL**	
	Epinephrine **0.1mg/mL IV**	0.14mg	**1.4mL**	Normal Saline IV Bolus	280mL	**280mL**	
	Epinephrine **1mg/mL IM**	0.14mg	**0.14mL**	Sodium Bicarbonate	14mEq	**14mL**	
	Epinephrine **1mg/mL NEB**	5mg	**5mL**				

15 Kg — **WHITE**

Length 94.5 – 107 cm			**3 – 4 years**		
Normal Vital Signs:	Heart Rate: 80-130		Respirations: 20-30	Systolic BP: >75	
Cardioversion:	15 joules		30 joules	30 joules	
Defibrillation:	30 joules		60 joules	60 joules	
Supraglottic Airway:	igel	Size 2	12 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	1.5mg	0.5mL	Glucagon IM	1mg	1mL
Albuterol NEB	2.5mg	3mL	Glucopaste*	15gm	1 dose
Amiodarone	75mg	1.5mL	Ketorolac slow IV/IO*	7.5mg	0.5mL
Atropine	0.3mg	3mL	Ketorolac IM*	7.5mg	0.5mL
Calcium Chloride	300mg	3mL	Lidocaine 2% IO	7.5mg	0.38mL
Dextrose 10% slow IV	75mL	75mL	Midazolam Agitation/Sedation IV/IO	1.5mg	0.3mL
Diphenhydramine IV/IM	15mg	0.3mL	Midazolam Agitation/Sedation IN/IM	3mg	0.6mL
DuoDote™	1 dose	NA	Midazolam Seizure ≥17mo IN/IM	PediDose	-
Epinephrine Push Dose	10mcg	1mL	Morphine IV/IM/IO	1.5mg	0.38mL
Epinephrine 0.1mg/mL IV	0.15mg	1.5mL	Naloxone IV/IM/IN	1.5mg	1.5mL
Epinephrine 1mg/mL IM	0.15mg	0.15mL	Normal Saline IV Bolus	300mL	300mL
Epinephrine 1mg/mL NEB	5mg	5mL	Ondansetron ODT*	4mg	1 tablet
Fentanyl IV/IM	15mcg	0.3mL	Sodium Bicarbonate	15mEq	15mL
Fentanyl IN	22.5mcg	0.45mL		*4 years or older	

16 Kg — **WHITE**

Length 94.5 – 107 cm			**3 – 4 years**		
Normal Vital Signs:	Heart Rate: 80-130		Respirations: 20-30	Systolic BP: >75	
Cardioversion:	16 joules		32 joules	32 joules	
Defibrillation:	32 joules		64 joules	64 joules	
Supraglottic Airway:	igel	Size 2	12 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	1.6mg	0.53mL	Glucagon IM	1mg	1mL
Albuterol NEB	2.5mg	3mL	Glucopaste*	15gm	1 dose
Amiodarone	80mg	1.6mL	Ketorolac slow IV/IO*	8mg	0.53mL
Atropine	0.32mg	3.2mL	Ketorolac IM*	8mg	0.53mL
Calcium Chloride	320mg	3.2mL	Lidocaine 2% IO	8mg	0.4mL
Dextrose 10% slow IV	80mL	80mL	Midazolam Agitation/Sedation IV/IO	1.6mg	0.32mL
Diphenhydramine IV/IM	16mg	0.32mL	Midazolam Agitation/Sedation IN/IM	3.2mg	0.64mL
DuoDote™	1 dose	NA	Midazolam Seizure ≥17mo IN/IM	PediDose	-
Epinephrine Push Dose	10mcg	1mL	Morphine IV/IM/IO	1.6mg	0.4mL
Epinephrine 0.1mg/mL IV	0.16mg	1.6mL	Naloxone IV/IM/IN	1.6mg	1.6mL
Epinephrine 1mg/mL IM	0.16mg	0.16mL	Normal Saline IV Bolus	320mL	320mL
Epinephrine 1mg/mL NEB	5mg	5mL	Ondansetron ODT*	4mg	1 tablet
Fentanyl IV/IM	16mcg	0.32mL	Sodium Bicarbonate	16mEq	16mL
Fentanyl IN	24mcg	0.48mL		*4 years or older	

17 Kg — WHITE

Length 94.5 – 107 cm			**3 – 4 years**		
Normal Vital Signs:	Heart Rate: 80-130		Respirations: 20-30	Systolic BP: >75	
Cardioversion:	17 joules		34 joules	34 joules	
Defibrillation:	34 joules		68 joules	68 joules	
Supraglottic Airway:	igel	Size 2	12 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	1.7mg	0.57mL	Glucagon IM	1mg	1mL
Albuterol NEB	2.5mg	3mL	Glucopaste*	15gm	1 dose
Amiodarone	85mg	1.7mL	Ketorolac slow IV/IO*	8.5mg	0.57mL
Atropine	0.34mg	3.4mL	Ketorolac IM*	8.5mg	0.57mL
Calcium Chloride	340mg	3.4mL	Lidocaine 2% IO	8.5mg	0.42mL
Dextrose 10% slow IV	85mL	85mL	Midazolam Agitation/Sedation IV/IO	1.7mg	0.34mL
Diphenhydramine IV/IM	17mg	0.34mL	Midazolam Agitation/Sedation IN/IM	3.4mg	0.68mL
DuoDote™	1 dose	NA	Midazolam Seizure ≥17mo IN/IM	PediDose	-
Epinephrine Push Dose	10mcg	1mL	Morphine IV/IM/IO	1.7mg	0.43mL
Epinephrine 0.1mg/mL IV	0.17mg	1.7mL	Naloxone IV/IM/IN	1.7mg	1.7mL
Epinephrine 1mg/mL IM	0.17mg	0.17mL	Normal Saline IV Bolus	340mL	340mL
Epinephrine 1mg/mL NEB	5mg	5mL	Ondansetron ODT*	4mg	1 tablet
Fentanyl IV/IM	17mcg	0.34mL	Sodium Bicarbonate	17mEq	17mL
Fentanyl IN	25.5mcg	0.51mL			*4 years or older

18 Kg — WHITE

Length 94.5 – 107 cm			**3 – 4 years**		
Normal Vital Signs:	Heart Rate: 80-130		Respirations: 20-30	Systolic BP: >75	
Cardioversion:	18 joules		36 joules	36 joules	
Defibrillation:	36 joules		72 joules	72 joules	
Supraglottic Airway:	igel	Size 2	12 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	1.8mg	0.6mL	Glucagon IM	1mg	1mL
Albuterol NEB	2.5mg	3mL	Glucopaste*	15gm	1 dose
Amiodarone	90mg	1.8mL	Ketorolac slow IV/IO*	9mg	0.6mL
Atropine	0.36mg	3.6mL	Ketorolac IM*	9mg	0.6mL
Calcium Chloride	360mg	3.6mL	Lidocaine 2% IO	9mg	0.45mL
Dextrose 10% slow IV	90mL	90mL	Midazolam Agitation/Sedation IV/IO	1.8mg	0.36mL
Diphenhydramine IV/IM	18mg	0.36mL	Midazolam Agitation/Sedation IN/IM	3.6mg	0.72mL
DuoDote™	1 dose	NA	Midazolam Seizure ≥17mo IN/IM	PediDose	-
Epinephrine Push Dose	10mcg	1mL	Morphine IV/IM/IO	1.8mg	0.45mL
Epinephrine 0.1mg/mL IV	0.18mg	1.8mL	Naloxone IV/IM/IN	1.8mg	1.8mL
Epinephrine 1mg/mL IM	0.18mg	0.18mL	Normal Saline IV Bolus	360mL	360mL
Epinephrine 1mg/mL NEB	5mg	5mL	Ondansetron ODT*	4mg	1 tablet
Fentanyl IV/IM	18mcg	0.36mL	Sodium Bicarbonate	18mEq	18mL
Fentanyl IN	27mcg	0.54mL			*4 years or older

19 Kg

Length 107 – 119.5 cm			**5 – 6 years**		
Normal Vital Signs:	**Heart Rate:** 70-120		**Respirations:** 15-30	**Systolic BP:** >80	
Cardioversion:	19 joules		38 joules	38 joules	
Defibrillation:	38 joules		76 joules	76 joules	
Supraglottic Airway:	igel	Size 2	12 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	1.9mg	**0.63mL**	Glucagon IM	1mg	**1mL**
Albuterol NEB	5mg	**6mL**	Glucopaste	15gm	**1 dose**
Amiodarone	95mg	**1.9mL**	Ketorolac slow **IV/IO**	9.5mg	**0.63mL**
Atropine	0.38mg	**3.8mL**	Ketorolac **IM**	9.5mg	**0.63mL**
Calcium Chloride	380mg	**3.8mL**	Lidocaine 2% IO	9.5mg	**0.48mL**
Dextrose 10% slow IV	95mL	**95mL**	Midazolam Agitation/Sedation **IV/IO**	1.9mg	**0.38mL**
Diphenhydramine IV/IM	19mg	**0.38mL**	Midazolam Agitation/Sedation **IN/IM**	3.8mg	**0.76mL**
DuoDote™	1 dose	**NA**	Midazolam Seizure ≥17mo **IN/IM**	PediDose	-
Epinephrine **Push Dose**	10mcg	**1mL**	Morphine IV/IM/IO	1.9mg	**0.48mL**
Epinephrine **0.1mg/mL IV**	0.19mg	**1.9mL**	Naloxone IV/IM/IN	1.9mg	**1.9mL**
Epinephrine **1mg/mL IM**	0.19mg	**0.19mL**	Normal Saline IV Bolus	380mL	**380mL**
Epinephrine **1mg/mL NEB**	5mg	**5mL**	Ondansetron ODT	4mg	**1 tablet**
Fentanyl **IV/IM**	19mcg	**0.38mL**	Sodium Bicarbonate	19mEq	**19mL**
Fentanyl **IN**	28.5mcg	**0.57mL**			

BLUE

20 Kg

Length 107 – 119.5 cm			**5 – 6 years**		
Normal Vital Signs:	**Heart Rate:** 70-120		**Respirations:** 15-30	**Systolic BP:** >80	
Cardioversion:	20 joules		40 joules	40 joules	
Defibrillation:	40 joules		80 joules	80 joules	
Supraglottic Airway:	igel	Size 2	12 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	2mg	**0.67mL**	Glucagon IM	1mg	**1mL**
Albuterol NEB	5mg	**6mL**	Glucopaste	15gm	**1 dose**
Amiodarone	100mg	**2mL**	Ketorolac slow **IV/IO**	10mg	**0.67mL**
Atropine	0.4mg	**4mL**	Ketorolac **IM**	10mg	**0.67mL**
Calcium Chloride	400mg	**4mL**	Lidocaine 2% IO	10mg	**0.5mL**
Dextrose 10% slow IV	100mL	**100mL**	Midazolam Agitation/Sedation **IV/IO**	2mg	**0.4mL**
Diphenhydramine IV/IM	20mg	**0.4mL**	Midazolam Agitation/Sedation **IN/IM**	4mg	**0.8mL**
DuoDote™	1 dose	**NA**	Midazolam Seizure ≥17mo **IN/IM**	PediDose	-
Epinephrine **Push Dose**	10mcg	**1mL**	Morphine IV/IM/IO	2mg	**0.5mL**
Epinephrine **0.1mg/mL IV**	0.2mg	**2mL**	Naloxone IV/IM/IN	2mg	**2mL**
Epinephrine **1mg/mL IM**	0.2mg	**0.2mL**	Normal Saline IV Bolus	400mL	**400mL**
Epinephrine **1mg/mL NEB**	5mg	**5mL**	Ondansetron ODT	4mg	**1 tablet**
Fentanyl **IV/IM**	20mcg	**0.4mL**	Sodium Bicarbonate	20mEq	**20mL**
Fentanyl **IN**	30mcg	**0.6mL**			

BLUE

22 Kg	**Length 107 – 119.5 cm**			**5 – 6 years**			BLUE
	Normal Vital Signs:	**Heart Rate:** 70-120		**Respirations:** 15-30	**Systolic BP:** >80		
	Cardioversion:	22 joules		44 joules	44 joules		
	Defibrillation:	44 joules		88 joules	88 joules		
	Supraglottic Airway:	igel	Size 2	12 F gastric suction catheter			
	Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**	
	Adenosine	2.2mg	**0.73mL**	Glucagon IM	1mg	**1mL**	
	Albuterol NEB	5mg	**6mL**	Glucopaste	15gm	**1 dose**	
	Amiodarone	110mg	**2.2mL**	Ketorolac slow **IV/IO**	11mg	**0.73mL**	
	Atropine	0.44mg	**4.4mL**	Ketorolac **IM**	11mg	**0.73mL**	
	Calcium Chloride	440mg	**4.4mL**	Lidocaine 2% IO	11mg	**0.55mL**	
	Dextrose 10% slow IV	110mL	**110mL**	Midazolam Agitation/Sedation **IV/IO**	2.2mg	**0.44mL**	
	Diphenhydramine IV/IM	22mg	**0.44mL**	Midazolam Agitation/Sedation **IN/IM**	4.4mg	**0.88mL**	
	DuoDote™	1 dose	**NA**	Midazolam Seizure ≥17mo **IN/IM**	PediDose	-	
	Epinephrine **Push Dose**	10mcg	**1mL**	Morphine IV/IM/IO	2.2mg	**0.55mL**	
	Epinephrine **0.1mg/mL IV**	0.22mg	**2.2mL**	Naloxone IV/IM/IN	2mg	**2mL**	
	Epinephrine **1mg/mL IM**	0.22mg	**0.22mL**	Normal Saline IV Bolus	440mL	**440mL**	
	Epinephrine **1mg/mL NEB**	5mg	**5mL**	Ondansetron ODT	4mg	**1 tablet**	
	Fentanyl **IV/IM**	22mcg	**0.44mL**	Sodium Bicarbonate	22mEq	**22mL**	
	Fentanyl **IN**	33mcg	**0.66mL**				

24 Kg — ORANGE

Length 119 – 129 cm			7 – 9 years		
Normal Vital Signs:	Heart Rate: 70-110		Respirations: 15-30	Systolic BP: >80	
Cardioversion:	24 joules		48 joules	48 joules	
Defibrillation:	48 joules		96 joules	96 joules	
Supraglottic Airway:	igel	Size 2.5	12 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	2.4mg	**0.8mL**	Glucagon IM	1mg	**1mL**
Albuterol NEB	5mg	**6mL**	Glucopaste	15gm	**1 dose**
Amiodarone	120mg	**2.4mL**	Ketorolac slow **IV/IO**	12mg	**0.8mL**
Atropine	0.48mg	**4.8mL**	Ketorolac **IM**	12mg	**0.8mL**
Calcium Chloride	480mg	**4.8mL**	Lidocaine 2% IO	12mg	**0.6mL**
Dextrose 10% slow IV	120mL	**120mL**	Midazolam Agitation/Sedation **IV/IO**	2.4mg	**0.48mL**
Diphenhydramine IV/IM	24mg	**0.48mL**	Midazolam Agitation/Sedation **IN/IM**	4.8mg	**0.96mL**
DuoDote™	2 doses	**NA**	Midazolam Seizure ≥17mo **IN/IM**	PediDose	-
Epinephrine **Push Dose**	10mcg	**1mL**	Morphine IV/IM/IO	2.4mg	**0.6mL**
Epinephrine **0.1mg/mL IV**	0.24mg	**2.4mL**	Naloxone IV/IM/IN	2mg	**2mL**
Epinephrine **1mg/mL IM**	0.24mg	**0.24mL**	Normal Saline IV Bolus	480mL	**480mL**
Epinephrine **1mg/mL NEB**	5mg	**5mL**	Ondansetron ODT	4mg	**1 tablet**
Fentanyl **IV/IM**	24mcg	**0.48mL**	Sodium Bicarbonate	24mEq	**24mL**
Fentanyl **IN**	36mcg	**0.72mL**			

26 Kg — ORANGE

Length 119 – 129 cm			7 – 9 years		
Normal Vital Signs:	Heart Rate: 70-110		Respirations: 15-30	Systolic BP: >80	
Cardioversion:	26 joules		52 joules	52 joules	
Defibrillation:	52 joules		104 joules	104 joules	
Supraglottic Airway:	igel	Size 2.5	12 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	2.6mg	**0.87mL**	Glucagon IM	1mg	**1mL**
Albuterol NEB	5mg	**6mL**	Glucopaste	15gm	**1 dose**
Amiodarone	130mg	**2.6mL**	Ketorolac slow **IV/IO**	13mg	**0.87mL**
Atropine	0.5mg	**5mL**	Ketorolac **IM**	13mg	**0.87mL**
Calcium Chloride	520mg	**5.2mL**	Lidocaine 2% IO	13mg	**0.65mL**
Dextrose 10% slow IV	130mL	**130mL**	Midazolam Agitation/Sedation **IV/IO**	2.6mg	**0.52mL**
Diphenhydramine IV/IM	26mg	**0.52mL**	Midazolam Agitation/Sedation **IN/IM**	5mg	**1mL**
DuoDote™	2 doses	**NA**	Midazolam Seizure ≥17mo **IN/IM**	PediDose	-
Epinephrine **Push Dose**	10mcg	**1mL**	Morphine IV/IM/IO	2.6mg	**0.65mL**
Epinephrine **0.1mg/mL IV**	0.26mg	**2.6mL**	Naloxone IV/IM/IN	2mg	**2mL**
Epinephrine **1mg/mL IM**	0.26mg	**0.26mL**	Normal Saline IV Bolus	520mL	**520mL**
Epinephrine **1mg/mL NEB**	5mg	**5mL**	Ondansetron ODT	4mg	**1 tablet**
Fentanyl **IV/IM**	26mcg	**0.52mL**	Sodium Bicarbonate	26mEq	**26mL**
Fentanyl **IN**	39mcg	**0.78mL**			

28 Kg

Length 119 – 129 cm			**7 – 9 years**		
Normal Vital Signs:	**Heart Rate:** 70-110		**Normal Vital Signs:**	**Heart Rate:** 70-110	
Cardioversion:	28 joules		56 joules	56 joules	
Defibrillation:	56 joules		112 joules	112 joules	
Supraglottic Airway:	igel	Size 2.5	12 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	2.8mg	**0.93mL**	Glucagon IM	1mg	**1mL**
Albuterol NEB	5mg	**6mL**	Glucopaste	15gm	**1 dose**
Amiodarone	140mg	**2.8mL**	Ketorolac slow **IV/IO**	14mg	**0.93mL**
Atropine	0.5mg	**5mL**	Ketorolac **IM**	14mg	**0.93mL**
Calcium Chloride	560mg	**5.6mL**	Lidocaine 2% IO	14mg	**0.7mL**
Dextrose 10% slow IV	140mL	**140mL**	Midazolam Agitation/Sedation **IV/IO**	2.8mg	**0.56mL**
Diphenhydramine IV/IM	28mg	**0.56mL**	Midazolam Agitation/Sedation **IN/IM**	5mg	**1mL**
DuoDote™	2 doses	**NA**	Midazolam Seizure ≥17mo **IN/IM**	PediDose	-
Epinephrine **Push Dose**	10mcg	**1mL**	Morphine IV/IM/IO	2.8mg	**0.7mL**
Epinephrine **0.1mg/mL IV**	0.28mg	**2.8mL**	Naloxone IV/IM/IN	2mg	**2mL**
Epinephrine **1mg/mL IM**	0.28mg	**0.28mL**	Normal Saline IV Bolus	560mL	**560mL**
Epinephrine **1mg/mL NEB**	5mg	**5mL**	Ondansetron ODT	4mg	**1 tablet**
Fentanyl **IV/IM**	28mcg	**0.56mL**	Sodium Bicarbonate	28mEq	**28mL**
Fentanyl **IN**	42mcg	**0.84mL**			

30 Kg — **GREEN**

Length 129 – 141.5 cm			10 – 12 years		
Normal Vital Signs:	Heart Rate: 60-100		Respirations: 15-20	Systolic BP: >90	
Cardioversion:	30 joules		60 joules	60 joules	
Defibrillation:	60 joules		120 joules	120 joules	
Supraglottic Airway:	igel	Size 2.5	12 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	3mg	**1mL**	Glucagon IM	1mg	**1mL**
Albuterol NEB	5mg	**6mL**	Glucopaste	15gm	**1 dose**
Amiodarone	150mg	**3mL**	Ketorolac slow **IV/IO**	15mg	**1mL**
Atropine	0.5mg	**5mL**	Ketorolac **IM**	15mg	**1mL**
Calcium Chloride	600mg	**6mL**	Lidocaine 2% IO	15mg	**0.75mL**
Dextrose 10% slow IV	150mL	**150mL**	Midazolam Agitation/Sedation **IV/IO**	3mg	**0.6mL**
Diphenhydramine IV/IM	30mg	**0.6mL**	Midazolam Agitation/Sedation **IN/IM**	5mg	**1mL**
DuoDote™	2 doses	**NA**	Midazolam Seizure ≥17mo **IN/IM**	PediDose	-
Epinephrine **Push Dose**	10mcg	**1mL**	Morphine IV/IM/IO	3mg	**0.75mL**
Epinephrine **0.1mg/mL IV**	0.3mg	**3mL**	Naloxone IV/IM/IN	2mg	**2mL**
Epinephrine **1mg/mL IM**	0.3mg	**0.3mL**	Normal Saline IV Bolus	600mL	**600mL**
Epinephrine **1mg/mL NEB**	5mg	**5mL**	Ondansetron ODT	4mg	**1 tablet**
Fentanyl **IV/IM**	30mcg	**0.6mL**	Sodium Bicarbonate	30mEq	**30mL**
Fentanyl **IN**	45mcg	**0.9mL**			

32 Kg — **GREEN**

Length 129 – 141.5 cm			10 – 12 years		
Normal Vital Signs:	Heart Rate: 60-100		Respirations: 15-20	Systolic BP: >90	
Cardioversion:	32 joules		64 joules	64 joules	
Defibrillation:	64 joules		128 joules	128 joules	
Supraglottic Airway:	igel	Size 2.5	12 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	3.2mg	**1.07mL**	Glucagon IM	1mg	**1mL**
Albuterol NEB	5mg	**6mL**	Glucopaste	15gm	**1 dose**
Amiodarone	160mg	**3.2mL**	Ketorolac slow **IV/IO**	15mg	**1mL**
Atropine	0.5mg	**5mL**	Ketorolac **IM**	15mg	**1mL**
Calcium Chloride	640mg	**6.4mL**	Lidocaine 2% IO	16mg	**0.8mL**
Dextrose 10% slow IV	160mL	**160mL**	Midazolam Agitation/Sedation **IV/IO**	3.2mg	**0.64mL**
Diphenhydramine IV/IM	32mg	**0.64mL**	Midazolam Agitation/Sedation **IN/IM**	5mg	**1mL**
DuoDote™	2 doses	**NA**	Midazolam Seizure ≥17mo **IN/IM**	PediDose	-
Epinephrine **Push Dose**	10mcg	**1mL**	Morphine IV/IM/IO	3.2mg	**0.8mL**
Epinephrine **0.1mg/mL IV**	0.32mg	**3.2mL**	Naloxone IV/IM/IN	2mg	**2mL**
Epinephrine **1mg/mL IM**	0.32mg	**0.32mL**	Normal Saline IV Bolus	640mL	**640mL**
Epinephrine **1mg/mL NEB**	5mg	**5mL**	Ondansetron ODT	4mg	**1 tablet**
Fentanyl **IV/IM**	32mcg	**0.64mL**	Sodium Bicarbonate	32mEq	**32mL**
Fentanyl **IN**	48mcg	**0.96mL**			

34 Kg — **GREEN**

Length 129 – 141.5 cm			10 – 12 years		
Normal Vital Signs:	Heart Rate: 60-100		Respirations: 15-20	Systolic BP: >90	
Cardioversion:	34 joules		68 joules	68 joules	
Defibrillation:	68 joules		136 joules	136 joules	
Supraglottic Airway:	igel	Size 2.5	12 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	3.4mg	**1.13mL**	Glucagon IM	1mg	**1mL**
Albuterol NEB	5mg	**6mL**	Glucopaste	15gm	**1 dose**
Amiodarone	170mg	**3.4mL**	Ketorolac slow **IV/IO**	15mg	**1mL**
Atropine	0.5mg	**5mL**	Ketorolac **IM**	15mg	**1mL**
Calcium Chloride	680mg	**6.8mL**	Lidocaine 2% IO	17mg	**0.85mL**
Dextrose 10% slow IV	170mL	**170mL**	Midazolam Agitation/Sedation **IV/IO**	3.4mg	**0.68mL**
Diphenhydramine IV/IM	34mg	**0.68mL**	Midazolam Agitation/Sedation **IN/IM**	5mg	**1mL**
DuoDote™	2 doses	**NA**	Midazolam Seizure ≥17mo **IN/IM**	PediDose	-
Epinephrine **Push Dose**	10mcg	**1mL**	Morphine IV/IM/IO	3.4mg	**0.85mL**
Epinephrine **0.1mg/mL IV**	0.34mg	**3.4mL**	Naloxone IV/IM/IN	2mg	**2mL**
Epinephrine **1mg/mL IM**	0.34mg	**0.34mL**	Normal Saline IV Bolus	680mL	**680mL**
Epinephrine **1mg/mL NEB**	5mg	**5mL**	Ondansetron ODT	4mg	**1 tablet**
Fentanyl **IV/IM**	34mcg	**0.68mL**	Sodium Bicarbonate	34mEq	**34mL**
Fentanyl **IN**	50mcg	**1mL**			

36 Kg — **GREEN**

Length 129 – 141.5 cm			10 – 12 years		
Normal Vital Signs:	Heart Rate: 60-100		Respirations: 15-20	Systolic BP: >90	
Cardioversion:	36 joules		72 joules	72 joules	
Defibrillation:	72 joules		144 joules	144 joules	
Supraglottic Airway:	igel	Size 2.5	12 F gastric suction catheter		
Medication	**Dose**	**mLs**	**Medication**	**Dose**	**mLs**
Adenosine	3.6mg	**1.2mL**	Glucagon IM	1mg	**1mL**
Albuterol NEB	5mg	**6mL**	Glucopaste	15gm	**1 dose**
Amiodarone	180mg	**3.6mL**	Ketorolac slow **IV/IO**	15mg	**1mL**
Atropine	0.5mg	**5mL**	Ketorolac **IM**	15mg	**1mL**
Calcium Chloride	720mg	**7.2mL**	Lidocaine 2% IO	18mg	**0.9mL**
Dextrose 10% slow IV	180mL	**180mL**	Midazolam Agitation/Sedation **IV/IO**	3.6mg	**0.72mL**
Diphenhydramine IV/IM	36mg	**0.72mL**	Midazolam Agitation/Sedation **IN/IM**	5mg	**1mL**
DuoDote™	2 doses	**NA**	Midazolam Seizure ≥17mo **IN/IM**	PediDose	-
Epinephrine **Push Dose**	10mcg	**1mL**	Morphine IV/IM/IO	3.6mg	**0.9mL**
Epinephrine **0.1mg/mL IV**	0.36mg	**3.6mL**	Naloxone IV/IM/IN	2mg	**2mL**
Epinephrine **1mg/mL IM**	0.36mg	**0.36mL**	Normal Saline IV Bolus	720mL	**720mL**
Epinephrine **1mg/mL NEB**	5mg	**5mL**	Ondansetron ODT	4mg	**1 tablet**
Fentanyl **IV/IM**	36mcg	**0.72mL**	Sodium Bicarbonate	36mEq	**36mL**
Fentanyl **IN**	50mcg	**1mL**			

ADULT — Longer than the Length-Based Resuscitation Tape — BLACK

Normal Vital Signs:	**Heart Rate:** 50-99		**Respirations:** 12-20	**Systolic BP:** >100
Cardioversion:	120 joules		150 joules	200 joules
Defibrillation:	200 joules		200 joules	200 joules
Supraglottic Airway:	igel	30-60 kg	Size 3 (12 F gastric suction catheter)	
		50-90 kg	Size 4 (12 F gastric suction catheter)	
		>90 kg	Size 5 (12 F gastric suction catheter)	

Medication	Dose	mLs	Medication	Dose	mLs
Adenosine	6 or 12mg	**2 or 4mL**	Ketorolac **IM**	30mg	**2mL**
Albuterol NEB	5mg	**6mL**	Lidocaine 2% IO	40mg	**2mL**
Amiodarone	300mg	**6mL**	Midazolam Agitation/Sedation **IV/IO**	5mg	**1mL**
Aspirin	325mg	**1 tablet**	Midazolam Agitation/Sedation **IM/IN**[3]	5mg	**1mL**
Atropine	1mg	**10mL**	Midazolam Seizure ≥12y **IM/IN**[3]	10mg	**2mL**
Calcium Chloride	1gm	**10mL**	Morphine IV/IM/IO[4]	4mg	**1mL**
Dextrose 10% slow IV[1]	125-250mL	**125-250mL**	Naloxone IV	0.8-2mg	**0.8-2mL**
Diphenhydramine IV/IM	50mg	**1mL**	Naloxone IM	2mg	**2mL**
DuoDote™	1-3 doses	**NA**	Naloxone IN	2-4mg	**2-4mL**
Epinephrine **Push Dose**	10mcg	**1mL**	Nitroglycerin[5]	0.4mg	**1 dose**
Epinephrine **0.1mg/mL IV**	1mg	**10mL**	Normal Saline IV Bolus	1L	**1L**
Epinephrine **1mg/mL IM**	0.5mg	**0.5mL**	Olanzapine ODT[6]	10mg	**1 tablet**
Epinephrine **1mg/mL NEB**	5mg	**5mL**	Ondansetron ODT	4mg	**1 tablet**
Fentanyl IV/IM/IN[2]	50mcg	**1mL**	Ondansetron IV/IM[7]	4mg	**2mL**
Glucagon IM	1mg	**1mL**	Sodium Bicarbonate	50mEq	**50mL**
Glucopaste	15gm	**1 dose**	Tranexamic Acid (TXA)[8]	1gm	**50/100mL**
Ketorolac slow **IV/IO**	15mg	**1mL**			

NOTES:

[1] Dextrose: **125mL IV** and reassess, if patient remains symptomatic, repeat x1 for a total of 250mL

[2] Fentanyl: **50mcg (1mL) slow IV push or IM/IN**, repeat every 5min prn, maximum total dose prior to Base Contact 150mcg

[3] Midazolam:

Agitated Delirium / Behavioral / Psychiatric Crisis

5mg (1mL) IM/IN/IV, repeat x1 in 5 min prn, maximum total dose prior to Base contact 10mg for Agitated Delirium (Psychiatric Crisis requires Base order prior to any medication administered)

Cardiac Dysrhythmia - sedation prior to synchronized cardioversion / transcutaneous pacing

5mg (1mL) slow IV/IO push/IM/IN, may repeat X1 in 5 min prn, maximum total dose prior to Base contact 10mg

Seizure - Active

10 mg (2mL) IN/IM, contact Base for additional dosing

With Base Contact may repeat x1 to a maximum of 20mg

[4] Morphine: **4mg (1mL) slow IV/IO push or IM**, repeat every 5min prn, maximum total dose prior to Base contact 12mg

[5] Nitroglycerin

Chest Pain – Suspected Cardiac / Chest Pain – STEMI

0.4 mg SL prn, repeat every 5min prn x2, total 3 doses, hold if SBP < 100mmHg or patient has taken sexually enhancing medication within 48 hours

Pulmonary Edema / CHF

0.4mg SL, for SBP ≥ 100mmHg; **0.8mg SL**, for SBP ≥ 150mmHg; **1.2mg SL**, for SBP ≥ 200mmHg

Repeat every 3-5 min prn x2 for persistent dyspnea, assess blood pressure prior to each administration and determine subsequent dose base on SBP as listed above. Hold if SBP

[6] Olanzapine ODT given once

[7] Ondansetron IV/IM – only for 15 years of age or older

[8] Tranexamic Acid (TXA) – 1gm(10mL) dilute in 50 or 100mL of normal saline infused over 10 minutes

SUBJECT: **TRIAGE TO ALTERNATE DESTINATION (TAD) PARAMEDIC PROVIDER PROGRAM** REFERENCE NO. 424

PURPOSE: To outline criteria for the approval of a triage to alternate destination (TAD) paramedic provider program in Los Angeles County.

AUTHORITY: Health & Safety Code, Division 2.5, Section §1797-1863
California Code of Regulations, Title 22, Division 9, Chapter 5

DEFINITIONS:

Advanced Life Support (ALS): Patient care requiring paramedic level assessment and/or intervention(s) listed in Ref. No. 803, Los Angeles County Paramedic Scope of Practice.

Designated TAD Facility: A mental health (Psychiatric Urgent Care Center) or non-correctional (Sobering Center) facility approved by the Los Angeles County Emergency Medical Services (EMS) Agency to receive patients assessed and triaged by paramedics for psychiatric care or sobering services.

Paramedic Provider Agency: A fire or law enforcement agency or licensed ambulance operator that meets the requirements outlined in Ref. No. 406, Authorization for Paramedic Provider Status, which includes, but not limited to: employing and sponsoring paramedics to provide ALS services; participating in EMS system programs (e.g., quality improvement); and complying with all applicable federal and state statutes and regulations, and local policies, procedures, guidelines and protocols.

TAD Paramedic: A California licensed and Los Angeles County accredited paramedic who has completed the training requirements of an EMS Agency approved TAD Paramedic Training Program and received TAD specific accreditation.

TAD Paramedic Provider Agency: A paramedic provider agency authorized by the EMS Agency to participate in the TAD Program.

TAD Paramedic Training Program: A training program approved by the EMS Agency to provide education on triage to alternate destinations for patients requiring psychiatric care or sobering services through didactic and clinical education and competency testing.

TAD Program: A system-wide ALS program developed by the EMS Agency and approved by the Emergency Medical Services Authority to assess and triage patients requiring psychiatric care to designated Psychiatric Urgent Care Centers, or sobering services to designated Sobering Centers in accordance with the California Code of Regulations, Chapter 5, Division 9.

PRINCIPLES:

1. The EMS Agency is the approving authority for TAD Programs in Los Angeles County.

APPROVED: _____ _____
Director, EMS Agency Medical Director, EMS Agency

2. The EMS Agency has oversight authority to conduct onsite visits, inspect, investigate, and discipline a Designated TAD Facility, TAD paramedic, TAD paramedic provider agency, TAD paramedic training program, and TAD programs for any violations to the standards set forth herein through denial, probation, suspension, or revocation of the approval and/or accreditation.

3. No person or organizations shall offer a TAD paramedic training program or TAD programs without the authorization from the EMS Agency.

4. The EMS Agency may exclude existing paramedic provider agencies from participating in the TAD program. Reasons may include: no designated TAD facilities can be accessed within patient destination transport guidelines, EMS resources are unreasonably removed from the paramedic provider agency's primary area of response, and participation will negatively impact patient care. The EMS Agency will provide the paramedic provider agency a written response outlining the reasons for exclusion.

5. A TAD paramedic's decision to transport to a designated TAD facility shall not be based on, or affected by, a patient's ethnicity, citizenship, age, preexisting medical condition, insurance status, economic status, ability to pay for medical services, or any other characteristics listed in Section 51 of the Civil Code except in circumstances in which age, sex, preexisting medical condition, or physical or mental disability is medically significant to the provision of appropriate medical care to the patient. A violation of Section 51 of the Civil Code will result in immediate termination from the program.

6. Maintaining skills competency and effective quality improvement program are important components for implementing and sustaining a successful TAD program. TAD provider agencies must ensure active clinical practice and participation in the quality improvement program for their TAD paramedics.

POLICY:

I. TAD Paramedic Provider Agency Program Requirements

   A. Be approved by the EMS Agency as a TAD paramedic provider agency.

      1. Must meet the requirements outlined in Ref. No. 406, Authorization for Paramedic Provider Status.

      2. Have a Medical Director who meets the requirements in Ref. No. 411, Provider Agency Medical Director.

      3. Incorporate the TAD paramedic provider agency program into existing continuing education and quality improvement programs.

   B. Have a TAD Paramedic Training Program approved by the EMS Agency.

      1. Administration, faculty requirements, and TAD course standards and curriculum must meet California Code of Regulations, Title 22, Division 5, Chapter 5, §100189, Community Paramedic and Transportation to Alternate Destination Training Programs Administration and Faculty Requirements.

2. Interested training programs must complete and submit an EMS Agency TAD Training Program Application packet to the EMS Agency for approval. The application packet must contain the following:

   a. Faculty forms containing the names and qualifications of the training program director, program medical director, and instructors.

   b. A statement verifying that the course meets the requirements contained in the current version of the United States Department of Transportation (U.S. DOT) National Education Standards.

   c. An outline of course objectives.

   d. Performance objectives for each skill.

   e. A minimum of one (1) final comprehensive competency-based examination must be administered to test the paramedic's skills and knowledge of the TAD Program.

C. Documentation and Data

1. Electronic Patient Care Report (ePCR) documentation must be in accordance with Ref. No. 606, Documentation of Prehospital Care.

2. Submission of ePCR data to the EMS Agency must be in accordance with current NEMSIS Standards and comply with the requirements in Ref. No. 607, Electronic Submission of Prehospital Data.

3. Retention and disposition of patient care records must comply with Ref. No. 608, Retention and Disposition of Prehospital Patient Care Records.

II. TAD Paramedic Training Program Approval Process

A. Training Program Director of proposed TAD training program shall submit a written request to the EMS Agency Office of Certification and Training Program Approvals.

B. Notification of program approval or deficiencies with application requirements shall be made in writing by the EMS Agency to the requesting paramedic training program within ninety (90) days of receiving the request for approval.

C. The EMS Agency shall approve and establish the effective date of the TAD paramedic training program approval in writing upon the program satisfactory meeting and documenting compliance with all program requirements.

D. TAD paramedic training program approval is valid for four (4) years ending on the last day of the month in which the request is approved. This approval is not transferable from person to person or between training programs.

E. The EMS Agency shall notify the California EMS Authority in writing of the training program approval.

III. TAD Paramedic Provider Agency Program Disciplinary Actions

A. The EMS Agency shall conduct an annual review of the TAD paramedic provider agency program to ensure compliance with all requirements.

B. Failure to comply with the requirements set forth herein may result in denial, probation, suspension, or revocation of approval.

C. Procedure for notification of noncompliance:

1. The EMS Agency shall provide a written notification of noncompliance to the TAD paramedic provider agency within ten (10) days of finding noncompliance.

2. Within fifteen (15) days from receipt of the notification, the TAD paramedic provider agency, shall submit in writing evidence of compliance or a plan to comply within sixty (60) days from the day of receipt of the notification.

3. Within fifteen (15) days from receipt of the TAD paramedic provider agency response or within thirty days (30) from the mailing date of the notification of noncompliance if no response is received, the EMS Agency shall issue a decision letter by certified mail to the California EMS Authority and the TAD paramedic provider agency identifying one or more of the following actions:

a. Accept the evidence of compliance provided.

b. Accept the plan for meeting compliance provided.

c. Place the TAD paramedic provider agency on probation.

d. Immediately suspend or revoke the approval for the paramedic provider agency to implement TAD.

4. The decision letter shall also include, but not be limited to the following:

a. The date of the EMS Agency’s decision.

b. Specific requirements the TAD paramedic provider agency failed to meet.

c. The probation and suspension effective and ending date, if applicable.

d. The terms and conditions of the probation or suspension, if applicable.

e. The revocation date, if applicable.

IV. TAD Paramedic Accreditation

A. The TAD paramedic applicant shall submit an EMS Personnel Information/Sponsorship Update Form and meet the following eligibility criteria:

1. Proof of an active, unrestricted California issued paramedic license,

2. Hold a current Los Angeles County Paramedic Accreditation,

3. Last four (4) numbers of social security number or individual tax identification number, and

4. A course completion certificate issued by an approved TAD Paramedic Training Program.

5. Application must be signed by an approved TAD Provider Agency sponsoring entity.

B. The EMS Agency shall review the EMS Personnel Information/Sponsorship Update Form and notify the applicant in writing within thirty (30) business days from the date of submission that the application is:

1. Incomplete or illegible and required corrective action, or

2. The TAD accreditation has been approved and the TAD accreditation information has been entered into the Central Registry database, or

3. The TAD accreditation has been denied, including the reason for the denial and notification of the applicant's right to appeal.

C. The EMS Agency shall register the TAD paramedic accreditation into the Central Registry database within five (5) business days of the TAD paramedic accreditation being approved.

D. The initial TAD paramedic accreditation shall expire on the last day of the month, two (2) years from the effective date of the TAD paramedic initial accreditation or upon expiration of County Paramedic accreditation, whichever is sooner.

E. TAD paramedic accreditation shall be renewed every two (2) years. The following eligibility criteria for renewal must be submitted to the EMS Agency:

1. Proof of current, unrestricted California issued paramedic license, and

2. Proof of completion of four (4) hours of approved TAD continuing education (CE).

F. To be eligible for reinstatement of a TAD paramedic accreditation that has expired twelve (12) months or less, the following eligibility criteria must be submitted to the EMS Agency:

1. Proof of current, unrestricted California issued paramedic license, and

2. Proof of completion of four (4) hours of approved TAD paramedic CE.

G. To be eligible for reinstatement of a TAD paramedic accreditation that has been expired for more than twelve (12) months, the following eligibility criteria must be submitted to the EMS Agency:

1. Proof of current, unrestricted California issued paramedic license, and

2. Proof of successful completion of an approved TAD paramedic training program within the last year from the submission date of the reinstatement application.

CROSS REFERENCES:
Prehospital Care Policy Manual:
Ref. No. 406, **Authorization for Paramedic Provider Status**
Ref. No. 411, **Provider Agency Medical Director**
Ref. No. 526, **Behavioral/Psychiatric Crisis**
Ref. No. 526.1, **Medical Clearance Criteria Screening Tool for Psychiatric Urgent Care Center (PUCC)**
Ref. No. 528, **Intoxicated (Alcohol) Patient Destination**
Ref. No. 528.1, **Medical Clearance Criteria Screening Tool for Sobering Center**
Ref. No. 602, **Confidentiality of Patient Information**
Ref. No. 606, **Documentation of Prehospital Care**
Ref. No. 607, **Electronic Submission of Prehospital Patient Data**
Ref. No. 608, **Retention and Disposition of Prehospital Patient Care Records**
Ref. No. 620, **EMS Quality Improvement Program**
Ref. No. 621, **Notification of Personnel Change**
Ref. No. 621.1, **Notification of Personnel Change Form Provider Agency/Training Programs**
Ref. No. 622, **Release of EMS Data**
Ref. No. 640, **EMS Documentation Manual**

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

SUBJECT: **TRIAGE TO ALTERNATE DESTINATION (TAD) PARAMEDIC PROVIDER PROGRAM REQUIREMENTS** REFERENCE NO. XXX

PURPOSE: To establish procedures for approval of Triage to Alternate Destination (TAD) Paramedic Training Program in Los Angeles County and requirements to maintain program approval.

AUTHORITY: California Code of Regulations, Title 22, Division 9, Chapter 5, §100187, 100188, 100189,100190,
California Code of Regulations, Title 2, Division 3, Part 1, Chapter 5, §11500
Health and Safety Code, Division 2.5, Chapter 13 Sections 1797.107, 1830, 1831, 1832, 1835, and 1836.

DEFINITIONS:

Designated TAD Facility: A mental health (Psychiatric Urgent Care Center) or non-correctional (Sobering Center) facility approved by the Los Angeles County Emergency Medical Services (EMS) Agency to receive patients assessed and triaged by paramedics for psychiatric care or sobering services.

Paramedic Provider Agency: A fire or law enforcement agency or licensed ambulance operator that meets the requirements outlined in Ref. No. 406, Authorization for Paramedic Provider Status, which includes, but not limited to: employing and sponsoring paramedics to provide ALS services; participating in EMS system programs (e.g., quality improvement); and complying with all applicable federal and state statutes and regulations, and local policies, procedures, guidelines and protocols.

TAD Paramedic: A California licensed and Los Angeles County accredited paramedic who has completed the training requirements of an EMS Agency approved TAD Paramedic Training Program and received TAD specific accreditation.

TAD Paramedic Provider Agency: A paramedic provider agency authorized by the EMS Agency to participate in the TAD Program.

TAD Paramedic Training Program : A training program approved by the EMS Agency to provide education on triage to alternate destinations for patients requiring psychiatric care or sobering services through didactic and clinical education and competency testing.

TAD Program: A system-wide ALS program developed by the EMS Agency and approved by the Emergency Medical Services Authority to assess and triage patients requiring psychiatric care to designated Psychiatric Urgent Care Centers, or sobering services to designated Sobering Centers in accordance with the California Code of Regulations, Chapter 5, Division 9.

Approved CE Provider: An individual or organization that has a valid California EMS

APPROVED: _____ _____
Director, EMS Agency Medical Director, EMS Agency

Continuing Education Provider (CEP) number, an EMS CEP approved by another State, or a Commission on Accreditation for Pre-Hospital Continuing Education (CAPCE) provider number.

PRINCIPLES:

1. A Paramedic Provider Agency with an approved CE provider program in Los Angeles County are eligible to apply for approval of a TAD program.

2. Training and competency evaluation for all TAD paramedics shall meet the minimum requirement set forth by the California EMS Authority and Los Angeles County EMS Agency.

3. Instructors must have adequate training, credentials, and/or experience in educational content and methodology in order to ensure courses adequately address the educational requirements and need of personnel.

POLICY:

I. TAD PARAMEDIC TRAINING PROGRAM APPROVAL:

The EMS Agency has the primary responsibility for approving and monitoring the performance of TAD Paramedic Training Program's in Los Angeles County (LAC) to ensure compliance with local policies, state regulations, and guidelines.

A. Approval Process:

1. The EMS Agency shall be the approving agency for TAD Paramedic Training Program located in LAC.

2. Program approval may be granted up to four (4) years and expiration date will coincide with their existing approved CE Provider program expiration date. The approval is not transferable to another organization.

3. If the Paramedic Provider Agency relinquishes their CEP number or it is revoked, their TAD Paramedic Training Program will also need to be relinquished or is subject to revocation.

B. TAD Paramedic Training Program Application Process:

1. Interested TAD Paramedic Training Programs shall obtain an application packet from the EMS Agency.

2. Any approved Paramedic Provider Agency interested in training their personnel to become accredited TAD Paramedics shall submit a complete application packet to the EMS Agency. Courses cannot be offered until program approval has been granted.

3. The application packet shall contain:

a. A complete and signed TAD Paramedic Training Program application.

b. A memo on program letterhead, signed by program director, requesting approval or re-approval of the TAD Paramedic Training Program.

c. Resume or Curriculum Vitae (CV), copies of applicable licenses and certifications, and signed program staff forms for program director, medical director, and instructors.

d. A memo statement verifying that the course content meets the requirements contained in the current version of the United States Department of Transportation (DOT) National Education Standards. Initial course length a minimum of six (6) hours and recertification course length a minimum of four (4) hours.

e. An outline of course objectives and Performance objectives for each skill.

f. The proposed location(s) and date(s) for courses.

g. A copy of written final competency exam with passing criteria and answer key administered by the TAD Paramedic Training Program.

h. A copy of attendance record or description of the on-line tracking of course completion requirements.

4. The EMS Agency shall notify the applicant within fourteen (14) days that the application was received and specify missing information, if any. Notification of approval or deficiencies with the application shall be made in writing by the EMS Agency to the requesting TAD Paramedic Training Program applicant within ninety (90) days of receiving request for approval. Failure to submit the missing information within thirty (30) calendar days shall require the applicant to resubmit an original application packet for TAD Paramedic Training Program approval.

5. The EMS Agency may deny an application for cause as specified in subsection I.C.2.

C. Denial/Revocation/Probation of a TAD Paramedic Training Program

1. The EMS Agency may, for cause:

a. Deny any TAD Paramedic Training Program application.

b. Revoke TAD Paramedic Training Program approval.

c. Place a TAD Paramedic Training Program on probation.

2. Causes for these actions include, but are not limited to the Following:

   a. Violating or attempting to violate, directly or indirectly, or assisting in or abetting the violation of, or conspiring to violate any of the terms of the California Code of Regulations, Title 22, Division 9, Chapter 5; the California Health and Safety Code, Division 2.5, Chapter 13; or Los Angeles County Emergency Medical Services Prehospital Care Policies.

   b. Failure to correct identified deficiencies within the specified length of time after receiving written notices from the EMS Agency.

   c. Misrepresentation of any fact by a TAD Paramedic Training Program of any required information.

3. The EMS Agency may take disciplinary action(s) on a TAD Paramedic Training Program if the EMS Agency has determined that probation, denial, or revocation is warranted. If this occurs, the proceedings shall adhere to the California Administrative Procedure Act, Chapter 5, commencing with Government code Section 11500.

4. If TAD Paramedic Training Program approval is revoked, training provided after the date of action shall be invalid.

5. A TAD Paramedic Training Program is ineligible to reapply for approval following a denial or revocation for a minimum of twelve (12) months.

6. If a TAD Paramedic Training Program is placed on probation, the terms of the probation, including approval of an appropriate corrective action plan, shall be determined by the EMS Agency. During the probationary period, prior approval of all courses offered must be obtained. Course documents must be submitted to the EMS Agency at least thirty (30) days prior to each course being offered. Written notification of course approval shall be sent to the TAD Paramedic Training Program within fifteen (15) days of receipt of the request. Renewal of the TAD Paramedic Training Program approval is contingent upon completion of the probationary period.

D. Notification

1. The EMS Agency shall notify the California EMS Authority of each TAD Paramedic Training Program approved, denied, or revoked within their jurisdiction within thirty (30) days of action.

II. <u>TAD PARAMEDIC TRAINING PROGRAM RENEWAL:</u>

A. A TAD Paramedic Training Program shall be renewed if the TAD Paramedic Training Program applies for renewal and demonstrates compliance with the requirements of this policy.

B. The TAD Paramedic Training Program must submit a complete application packet for renewal sixty (60) calendar days prior to expiration date to maintain continuous TAD Paramedic Training Program approval.

III. TAD PARAMEDIC TAD PARAMEDIC TRAINING PROGRAM REQUIREMENTS:

A. An approved TAD Paramedic Training Program shall ensure that:

1. The content of all TAD Paramedic Training Program training is relevant, enhances the practice of prehospital emergency medical care, and is related to the knowledge base or technical skills required for the scope of practice of a triage paramedic.

2. All records are maintained as outlined in this policy.

3. The EMS Agency is notified within thirty (30) calendar days of any request for change in training medical director, program director, instructor(s), training location address, or telephone number.

4. All records are available to the EMS Agency upon request.

5. The TAD Paramedic Training Program follows all policies and procedures.

B. Individual courses are open for scheduled or unscheduled visits/educational audits by the EMS Agency.

IV. TAD PARAMEDIC TRAINING PROGRAM STAFF REQUIREMENTS:

Each TAD Paramedic Training Program shall designate a medical director, program director, and instructor(s) who meet the requirements. Nothing in this section precludes the same individual from being responsible for more than one function.

A. Medical Director

Each TAD Paramedic Training Program shall have an approved medical director that will review and approve educational content, standards, and curriculum, including training objectives and local protocols and policies for the clinical and field instruction to certify ongoing appropriateness and medical accuracy. Reviews and approves the quality of medical instruction, supervision, course instructor(s), and evaluation of the students in all areas of the program.

1. TAD medical director's qualifications are as follows:

a. Board Certified or Board eligible emergency medical physician currently licensed in California, who has experience in emergency medicine and has education in method of instruction.

B. Program Director

Each TAD Paramedic Training Program shall have an approved program director who is an employee of the organization and has education and experience in methods, materials, and evaluation of instruction.

1. TAD program director's qualifications are as follows:

    a. Board Certified or Board Eligible California licensed emergency medical physician, registered nurse, or paramedic.

    b. Has knowledge or experience in Los Angeles County EMS protocols and policies.

    c. A minimum of three (3) years academic or clinical experience in prehospital care education.

    d. Be qualified by education and experience with at leastforty (40) hours of documented teaching methodology instruction in areas related to methods, materials, and evaluation of instruction

2. The duties of the TAD program director shall include, but are not limited to:

    a. Administration, organization, and supervision of the educational program.

    b. In coordination with the medical director, approves the instructor(s), the development of curriculum, including instructional objectives., and all methods of evaluation.

    c. Ensure TAD Paramedic Training Program compliance with California Code of Regulations, Title 22, Division 9, Chapter 5 and other related laws.

    d. Ensure that all course completion records include a signature verification and maintain those records in a manner consistent with this policy.

    e. Attending the mandatory EMS Agency Orientation Program within six (6) months of approval as the program director.

    f. Attend all mandatory TAD program updates.

    g. Act as a liaison to the EMS Agency.

C. Instructor(s)

Each TAD Paramedic Training Program instructor shall be approved by the medical director and program director as qualified to teach the TAD curriculum. An instructor may also be the program medical director or program director.

1. Instructor qualifications are as follows:

    a. Be a physician, registered nurse, physician assistant, nurse practitioner, or paramedic, who is currently certified or licensed in the State of California.

    b. Have six (6) years' experience in an allied health field, OR four (4) years of experience in an allied health field and an associate degree OR two (2) years of experience in an allied health field and a baccalaureate degree.

    c. Be knowledgeable in the course content of the U.S. DOT National Emergency Medical Services Education Standards

    d. Be able to demonstrate expertise and a minimum of two (2) years of experience within the past five (5) years in the subject matter being taught.

    e. Be qualified by education and experience with at least forty (40) hours of documented teaching methodology instruction in areas related to methods, materials, and evaluation of instruction.

V. TAD PARAMEDIC TRAINING PROGRAM CIRRICULUM MINIMUM REQUIREMENTS:

Initial training course length a minimum of six (6) hours and recertification course a minimum of four (4) hours. In addition, one (1) final comprehensive competency-based examination to test the knowledge and skills specified in this document.

1. Course content:

    a. Screening and responding to mental health and substance use crisis intervention to be provided by a licensed physician in the emergency department of a general acute hospital.

    b. Mental health conditions.

    c. Assessment and treatment of intoxicated patients

    d. The prevalence and causes of substance use disorders and associated public health impacts.

    e. Suicide risk factors

    f. Alcohol and substance abuse disorders

    g. Triage and transport parameters.

    h. Heath risks and intervention in stabilizing acutely intoxicated patients

i. Common medical conditions and infections with presentations similar to psychosis and intoxication which require medical testing and treatment.

j. Disease process, behavioral emergencies, and injury patterns common to those with chronic alcohol use and other substance use disorders.

k. Los Angeles County EMS protocols and policies for triage, treatment, transport, and transfer care, of patients to an alternate destination facility.

l. Psychiatric disorders.

m. EMTALA laws as it pertains to psychiatric, and substance use disorder-related emergencies.

n. Neuropharmacology.

o. Patient consent.

p. Patient documentation.

q. Medical quality improvement.

VI. TAD PARAMEDIC TRAINING PROGRAM EDUCATION ATTENDANCE RECORD

A. A TAD Paramedic Training Program Education Attendance Record must be completed for all TAD Paramedic Training Program training provided. Each student must sign an attendance record or register online in order to receive credit.

B. The information on the TAD Paramedic Training Program Education Attendance Record must contain all the elements set forth in the TAD Paramedic Training Program application packet.

C. Attendees shall sign in or register only for themselves. Signing for another individual is strictly prohibited and subject to action.

D. The original TAD Paramedic Training Program Education Attendance Record shall be maintained by the program. A legible copy (unless original is requested) of the attendance records shall by submitted to the Office of Certification/Program Approvals upon request by the EMS Agency for the following:

1. Any County mandated program

2. Any TAD Paramedic Training Program Education Attendance Record requested by the EMS Agency

VII. TAD PARAMEDIC TRAINING PROGRAM COURSE COMPLETION CERTIFICATES AND DOCUMENTS

Program shall issue a tamper resistant document (method determined by the TAD Paramedic Training Program) that contains all the set forth in the TAD Paramedic Training Program application packet as proof of successful completion of a course within thirty (30) calendar days.

CROSS REFERENCE:

Prehospital Care Manual:

Ref. No. 406,	**Authorization for Paramedic Provider Status**
Ref. No. 411,	**Provider Agency Medical Director**
Ref. No. 425,	**Triage to Alternate Destination (TAD) Paramedic Provider Program**
Ref. No. 526,	**Behavioral/Psychiatric Crisis**
Ref. No. 528,	**Intoxicated (Alcohol) Patient Destination**
Ref. No. 528.1,	**Medical Clearance Criteria Screening Tool for Sobering Center**
Ref. No. 602,	**Confidentiality of Patient Information**
Ref. No. 621,	**Notification of Personnel Change**
Ref. No. 621.1,	**Notification of Personnel Change Form Provider Agency/TAD Paramedic Training Programs**
Re. No. 1013,	**EMS Continuing Education (CE) Provider Approval and Program Requirements**

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

DRAFT 01-22-2024

(EMT, PARAMEDIC, MICN)

SUBJECT: **PATIENT DESTINATION** REFERENCE NO. 502

PURPOSE: To ensure that 9-1-1 patients are transported to the most appropriate facility that is staffed, equipped, and prepared to administer emergency and/or definitive care appropriate to the needs of the patient.

AUTHORITY: Health and Safety Code, Division 2.5, Section 1797.220
California Administrative Code, Title 13, Section 1105 (c)

PRINCIPLES:

1. In the absence of decisive factors to the contrary, 9-1-1 patients shall be transported to the most accessible 9-1-1 receiving facility equipped, staffed, and prepared to receive emergency cases and administer emergency care appropriate to the needs of the patient.

2. The most accessible receiving (MAR) facility may or may not be the closest facility geographically. Transport personnel shall take into consideration traffic, weather conditions, or other factors that may influence transport time in identifying the most accessible facility.

3. The most appropriate receiving facility for a patient may be the health facility which is affiliated with their health plan. Depending upon the patient's chief complaint and medical history, it may be in the patient's best interest to be transported to their 'medical home', as defined by their health plan, personal physician, and/or medical records.

4. Patients shall not be transported to a medical facility that is on diversion due to internal disaster.

5. Notwithstanding any other provision of this reference, and in accordance with Ref. No. 503, Guidelines for Hospitals Requesting Diversion of ALS Patients, final authority for patient destination rests with the base hospital handling the call. Base hospitals shall honor diversion requests based on patient condition and available system resources. 9-1-1 patients shall ordinarily be transported to general acute care hospitals with a basic emergency department permit. Transport to other medical facilities (hospitals with a stand-by permit, clinics and other medical facilities approved by the EMS Agency) shall be performed only in accordance with this policy.

POLICY:

I. Transport of Patients by EMT Personnel

A. EMT personnel shall transport 9-1-1 patients deemed stable and requiring only basic life support (BLS) to the MAR ~~regardless of its diversion status~~ (exception: BLS Diversion or Internal Disaster).

APPROVED: _____ _____
Director, EMS Agency Medical Director, EMS Agency

B. If the MAR has requested BLS diversion as per Ref. 503, the patient may be diverted to an alternate facility assuming the involved BLS unit estimates that it can reach an alternate facility within fifteen (15) minutes from the incident location. If there are no open facilities within this time frame, BLS patients shall be directed to the MAR, regardless of its diversion status (exception: Internal Disaster).

~~B~~C. EMT personnel may honor patient requests to be transported to other than the MAR provided that the patient is deemed stable, requires basic life support measures only, and the ambulance is not unreasonably removed from its primary area of response. In order to facilitate this, EMT personnel may transfer care of a patient to another EMT team if necessary.

D. In life-threatening situations (e.g., unmanageable airway or uncontrollable hemorrhage) in which the estimated time of arrival (ETA) of the paramedics exceeds the ETA to the MAR, EMTs should exercise their clinical judgment as to whether it is in the patient's best interest to be transported prior to the arrival of paramedics.

E. EMT personnel may immediately transport hypotensive trauma patients with life-threatening, penetrating injuries to the torso to the closest trauma center, not the MAR, when the transport time is less than the estimated time of paramedic arrival. The transporting unit should make every effort to contact the receiving trauma center while in route.

II. Transport of Patients by Paramedic Personnel

A. Patients should be transported to the MAR unless:

1. The base hospital determines that another facility is more appropriate to meet the needs of the patient; or

2. The patient meets criteria or guidelines for transport to a specialty care center (i.e., Trauma Center, Pediatric Trauma Center, ST-Elevation Myocardial Infarction Receiving Center, Emergency Department Approved for Pediatrics, Pediatric Medical Center, Perinatal Center, Sexual Assault Response Team Center, or Designated Stroke Center);

3. The patient requests a specific hospital; and

a. The patient's condition is considered sufficiently stable to tolerate additional transport time; and

b. The requested hospital does not have a defined service area (see Section V of this policy); and

c. The requested hospital can provide services appropriate to the patient's chief complaint; and

d. The EMS provider has determined that such a transport would not unreasonably remove the unit from its primary area of response. If the provider is unable to honor the request, and the patient

therefore refuses to be transported, the provider should attempt to arrange for alternate transportation (i.e., private ambulance), in order to assist patient with receiving necessary treatment.

4. The MAR has requested diversion of 9-1-1 patients requiring advanced life support (ALS) as specified in Ref. No. 503. ALS patients may be directed to an alternate open facility provided:

   a. The patient does not exhibit an unmanageable airway or uncontrolled hemorrhage.

   b. The involved ALS unit estimates that it can reach an alternate facility within fifteen (15) minutes, Code 3, from the incident location. If there are no open facilities within this time frame, ALS patients shall be directed to the MAR, regardless of its diversion status (exception: Internal Disaster).

B. Paramedic personnel may transfer care of a patient to another paramedic team if necessary. If base hospital contact has been made, the initial paramedic team shall advise the base hospital that another paramedic team has assumed responsibility for the patient.

III. Destination of Restrained Patients

A. Restrained patients shall be transported to the MAR within the guidelines of this policy. Allowable exceptions:

1. Patients without a medical complaint, with a 5150 order written by a designated Department of Mental Health Team, when transport to a psychiatric facility has been arranged.

2. A law enforcement request for transport to medical facilities other than the closest may be honored with base hospital concurrence.

IV. Transport to Hospitals or Medical Facilities that are Non 9-1-1 Receiving Facilities

A. Patient requests for transport to hospitals that are not 9-1-1 Receiving Facilities may be honored by EMT or paramedic personnel provided:

1. The patient, family, or private physician is made aware that the requested hospital is not a 9-1-1 receiving facility;

2. The Base hospital or EMS provider contacts the requested facility and ensures that the hospital has agreed to accept the patient;

3. If transport requires additional transport time, the patient’s condition is considered sufficiently stable to tolerate and the EMS provider has determined that such a transport would not unreasonably remove the unit from its primary area of response

B. Other medical facilities approved on an individual basis by the EMS Agency:

9-1-1 patients may be transported to medical facilities other than hospitals (i.e., clinics, etc.) only when approved in advance by the EMS Agency.

V. Transport to Designated Service Area Facilities

A. Patients shall be transported by EMT or paramedic personnel to hospitals with a designated service area whenever the incident location is within the hospital's defined service area (exception: diversion for Internal Disaster). In most instances, the service area hospital is also the MAR.

B. If a patient within the defined service area meets criteria or guidelines for a specialty care center, for care not provided by the service area hospital, this patient shall be transported to the appropriate specialty care center.

C. Patient requests for transport to a service area hospital when the incident location is outside the hospital's defined service area or inside the service area of another hospital, may be honored by:

1. EMT personnel if it is a BLS patient, the receiving hospital is contacted and agrees to accept the patient, and the transporting unit is not unreasonably removed from its primary response area.

2. Paramedic personnel if the base hospital is contacted and concurs that the patient's condition is sufficiently stable to permit the estimated transport time, the requested hospital agrees to accept the patient, and the transporting unit is not unreasonably removed from its primary response area. The receiving hospital may be contacted directly if the ALS unit is transporting a BLS patient.

CROSS REFERENCE:

Prehospital Care Manual:
Ref. No. 501, **Hospital Directory**
Ref. No. 503, **Guidelines for Hospitals Requesting Diversion of ALS Patients**
Ref. No. 504, **Trauma Patient Destination**
Ref. No. 506, **Trauma Triage**
Ref. No. 508, **Sexual Assault Patient Destination**
Ref. No. 508.1 **SART Center Roster**
Ref. No. 509, **Service Area Hospital**
Ref. No. 510, **Pediatric Patient Destination**
Ref. No. 511, **Perinatal Patient Destination**
Ref. No. 512, **Burn Patient Destination**
Ref. No. 513, **ST-Elevation Myocardial Infarction Patient Destination**
Ref. No. 516, **Cardiac Arrest Patient Destination**
Ref. No. 518, **Decompression Emergencies/Patient Destination**
Ref. No. 519, **Management of Multiple Casualty Incidents**
Ref. No. 521, **Stroke Patient Destination**
Ref. No. 526, **Behavioral/Psychiatric Crisis Patient Destination**
Ref. No. 528, **Intoxicated (Alcohol) Patient Destination**
Ref. No. 838**,** **Application of Patient Restraints**

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

(EMT, PARAMEDIC, MICN)

SUBJECT: **DOCUMENTATION OF PREHOSPITAL CARE** REFERENCE NO. 606

PURPOSE: To identify the base hospital and Emergency Medical Services (EMS) provider procedures for documentation of prehospital care.

AUTHORITY: California Code of Regulations, Title 22, Sections 100128, 100129, 100170, 100171

DEFINITIONS

EMS Response: The physical response of an EMS provider due to activation of the EMS system with a request for medical evaluation.

Multiple Casualty Incident (MCI): The combination of numbers of ill/injured patients and the type of injuries going beyond the capability of an entity's normal first response.

Patient: A person who seeks or appears to require medical assessment and/or medical treatment.

Patient Contact: An EMS response that results in an actual patient or patients.

Public Assist: EMS is dispatched to a scene for assistance for nonmedical issues.

PRINCIPLES:

1. The EMS Record and the Base Hospital Form are:

    a. Patient care records
    b. Legal documents
    c. Quality improvement instruments
    d. Billing resources (EMS Record only)
    e. Records of canceled calls, no patient found, public assist involving a person, and person contact/no patient (EMS Record only)

2. Any assessment or treatment provided to, and medical history obtained from, the patient shall be accurately and thoroughly documented on the EMS Record.

3. Any person who alters or modifies the medical record of any person, with fraudulent intent, or who, with fraudulent intent, creates any false medical record, is guilty of a misdemeanor (section 471.5 of the California Penal Code).

4. An EMS Record must be completed for every EMS response regardless of patient disposition.~~if a provider agency is unable to submit a quarterly volume report to the EMS Agency for the following types of calls:~~

    ~~a. Canceled calls~~
    ~~b. No patient(s) found~~
    ~~c. Public assist involving a person~~

APPROVED: _____ _____
Director, EMS Agency Medical Director, EMS Agency

~~d. Person contact/no patient~~

POLICY:

I. EMS Record Completion – Paramedic/EMT Personnel

A. EMS providers shall document prehospital care according to procedures identified in the LA-EMS National Emergency Medical Services Information System (NEMSIS) Data Dictionary. ~~EMS Documentation Manual.~~

B. Electronic EMS Patient Care Record (ePCR) Completion

1. Paramedic/EMT personnel shall complete one EMS Agency approved ePCR (one for each patient) for every 9-1-1 response which includes the following:

a. Patient contact made
b. Cancelled on scene
c. Cancelled prior to arrival at scene
d. No patient contact
e. No patient found

~~B.~~C. Paper-Based EMS Report Form Completion

~~1.~~ Paramedic/EMT personnel may document on a paper-based EMS Report Form if ePCR system failure occurs. ~~from the first responding agency shall complete one Los Angeles County EMS Agency approved EMS Report Form (one for each patient) for every 9-1-1 patient contact which includes the following:~~

1.

~~2.~~ Private EMS providers shall utilize a paper-based EMS Report Form only for patients where base contact is made unless approved to electronically submit ePCR data.

~~3. Regular runs~~
~~4. DOA (dead on arrival; patients determined or pronounced dead per Ref. No. 814, Determination/Pronouncement of Death in the Field)~~
~~5. ALS interfacility transfer patients~~
~~6.~~
~~7.~~1. ~~Electronic EMS Patient Care Record (ePCR) Completion~~
~~8.~~2.
~~9. Paramedic/EMT personnel may document and submit prehospital care data electronically in lieu of the standard EMS Report Form if their department has received prior authorization from the EMS Agency.~~

~~10. Paramedic/EMT personnel shall complete one EMS Agency approved ePCR (one for each patient) for every 9-1-1 patient contact which includes the following:~~

~~11.~~
~~12. Regular runs~~
~~13. DOA (dead on arrival; patients determined or pronounced dead per Ref. No. 814, Determination/Pronouncement of Death in the Field)~~
~~14. ALS interfacility transfer patients~~

~~C.~~D. Multiple Providers

1. In the event of an automatic or mutual aid incident when two first responding providers have each completed an EMS Record, or patient care is transferred from one ALS provider agency to another, each provider agency shall document the Original Sequence Number from the other provider's patient care record in the space designated for ~~Second~~ Original Sequence Number. If utilizing a paper EMS Report Form, document in the space designated for Second Sequence number. DO NOT cross out or line through the imprinted Sequence Number if utilizing a paper EMS Report Form.

2. The provider agency transferring patient care must have a mechanism in place to provide immediate transfer of patient information to the transporting agency.

~~D.~~E. Multiple Casualty Incidents (MCI)

1. One standard EMS Record must be initiated for each patient transported in an MCI. Provider agencies may use alternate means of documenting MCIs if the EMS Agency is notified prior to implementation and agrees with the proposed process.

2. Documentation should include the following, at minimum:

   a. Name
   b. Provider Impression
   c. Chief Complaint
   d. Mechanism of Injury, if applicable
   e. Age and units of age
   f. Gender
   g. Brief patient assessment
   h. Brief description of treatment provided
   i. Transporting provider (provider code and unit number) and level of service (ALS, BLS or Helicopter)
   j. Destination
   k. Receiving facility

3. Non-transported patients should be documented on a standard EMS Record or a patient log.

4. Each provider agency should submit copies of all records and logs pertaining to an MCI ~~of greater than 5 victims~~ to the EMS Agency within 10 business days of the incident. MCI documents should be hand carried or delivered to the EMS Agency in an envelope clearly marked with the incident date and location.

~~E.~~F. Completion of the EMS Record Prior to Distribution

1. EMTs and paramedics responsible for documenting prehospital care shall ensure that EMS Records are completed in their entirety prior to dissemination to the receiving facility. In most instances, this means that the record is completed at the scene or upon arrival at the receiving facility.

2. An exception to this is when a first responding agency utilizing paper-based EMS Report Forms is giving the receiving hospital (red) copy to a transporting agency. In the interest of expediting the transfer of care, it is recognized that information such as the unit times may not be documented on the receiving hospital (red) copy of the EMS Report Form.

~~F.~~G. Field Transfer of Care

1. When patient care has been transferred from the first responding ALS or BLS provider agency to a BLS provider agency for transport to a receiving facility, the provider agency receiving the patient should **NOT** generate an ePCR with a new Sequence Number (this will result in the same patient being entered into the ESO Repository~~TEMIS~~ with two different sequence numbers).

2. The provider agency that receives the BLS patient for transport to a receiving facility shall complete their agency's ePCR and document the Sequence Number generated by the first responding ALS or BLS provider agency's ePCR on their ePCR or paper-based EMS Report Form.

3. If utilizing a paper-based EMS Report Form, the receiving hospital (red) copy of the EMS Report Form, as well as the PCR from the BLS transport provider (red copy), must accompany the patient to the receiving facility where it becomes part of the patient's medical record.

4. It is the responsibility of the EMS Provider to ensure that a completed copy of the EMS Record is provided to the receiving facility upon transfer of care.

~~G.~~H. Completion of Advanced Life Support Continuation Form

1. If utilizing a paper-based EMS Report Form, required for each patient on whom advanced airway management is necessary.

2. Paramedics completing this form must ensure that the demographic information (patient name, date, provider code/unit, incident #) and Sequence Number are legibly and accurately transcribed from the EMS Report Form.

II. Base Hospital Form - MICN and/or Physicians

A. Base hospital personnel (MICNs and physicians) shall document prehospital care according to procedures identified in the Base Hospital Documentation Manual.

B. Base Hospital Form Completion

1. MICNs and/or physicians shall complete one EMS Agency approved Base Hospital Form (one for each patient in which medical direction is given) for every base hospital paramedic radio/telephone contact.

2. MICNs and/or physicians may document base hospital data electronically in lieu of the standard Base Hospital Form if the base hospital has received prior authorization from the EMS Agency.

C. Base Hospital Directed Multiple Casualty Incidents (MCI)

1. EMS Agency-approved MCI Base Hospital Forms may be utilized for incidents involving three or more patients.

2. Physicians and MICNs should limit requested information to **only** that which is essential to determine destination or medical management. Additional information and Sequence Numbers should be obtained after the MCI has cleared.

3. The following should be documented for MCIs involving three or more patients, when base contact is made for online medical control:

   a. Date
   b. Time
   c. Sequence number/Triage tag number
   d. Provider and unit
   e. Chief complaint
   f. Mechanism of injury, if applicable
   g. Age and units of age
   h. Gender
   i. Brief patient assessment, when possible
   j. Brief description of treatment provided, when possible
   k. Transporting provider, method of transport (ALS, BLS or Helicopter)
   l. Destination
   m. Receiving Facility

4. Upon request of the EMS Agency the base hospital should submit all records pertaining to an MCI ~~of greater than 5 victims~~ to the EMS Agency within 10 business days.

5. Provider agencies may use alternate means of reporting MCIs. Base Hospitals will be notified by the EMS Agency when alternate reporting methods will be implemented by various provider agencies.

6. MCIs involving **ONLY** BLS patients: BLS patients who are transported to a receiving facility should be documented on one Base Hospital Form in the Comments Section (provided no medical direction is given).

7. MCIs involving ALS **and** BLS Patients:

   a. One standard Base Hospital Form or one EMS Agency-approved MCI Base Hospital Form must be completed for each ALS patient.

   b. BLS patients on whom no medical direction has been given do not require a Base Hospital Form. The number and disposition of the BLS patients may be documented on the Base Hospital Form of an ALS patient in the Comments Section.

8. Alternate methods of documenting MCIs may be initiated by base hospitals with the approval of the EMS Agency.

III. Modification of Patient Care Records

A. Modifying the Patient Care Record (additions, deletions or changes) after the Patient Care Record has been completed or disseminated:

1. An audit trail of changes made to an electronic record will be included on the ePCR.

~~1.~~2. For paper-based EMS Report Forms, make corrections by drawing a single line through the incorrect item or narrative (the writing underneath the single line must remain readable).

Make the changes on the original, noting the date and time the changes were made, with the signature of the individual making the changes adjacent to the correction. Ideally, changes should be made by the individual who initially completed the form. Under no circumstances should changes to either patient assessment or patient treatment documentation be made by an individual who did not participate in the response.

~~2.1. An audit trail of changes made to an electronic record will be included on the ePCR.~~

B. Making substantive changes (documentation of additional medications, defibrillation attempts, pertinent comments, complaints, etc.) to the EMS Record:

1. For electronic documentation systems, patient care related corrections are to be made as per provider agency policy. The provider agency shall notify its receiving hospital(s) of the mechanism by which ePCRs are updated and when an ePCR is updated. If the receiving hospital receives a printed copy of the record, a printed copy of the revised record will be provided directly to them.

2. Photocopy the paper-based EMS Report Form with the changes and send the copy, along with a cover letter, to all entities that received the original form (EMS Agency, receiving facility). The cover letter should explain the modifications and request that the modified copy be attached to the original

~~1.~~3. copy.

~~2.~~4. Do not re-write the incident on a new paper-based EMS Report Form because this would result in a mismatch in Sequence Number. If the form requiring corrections has been mutilated or soiled and cannot be photocopied, then a new form may be used to re-write the incident provided the Sequence Number of the new form has been replaced with the Sequence Number from the original form.

~~3.~~1. ~~For electronic documentation systems, patient care related corrections are to be made as per provider agency policy. The provider agency shall notify its receiving hospital(s) of the mechanism by which ePCRs are updated and when an ePCR is updated. If the receiving hospital receives a printed copy of the record, a printed copy of the revised record will be provided directly to them.~~

CROSS REFERENCES:

Prehospital Care Manual:

Ref. No. 519, **Management of Multiple Casualty Incidents**
Ref. No. 607, **Electronic Submission of Prehospital Data**
Ref. No. 608, **Retention and Disposition of Prehospital Patient Care Records**
Ref. No. 640, **LA-EMS NEMSIS Data Dictionary**~~**EMS Documentation Manual**~~
Ref. No. 644, **Base Hospital Documentation Manual**

EMERGENCY DEPARTMENT INTERFACILITY TRANSFER
DRAFT CHECKLIST FOR STEMI RE-TRIAGE DRAFT

9-1-1 STEMI IFT Checklist

Yes	No	
❒	❒	ECG read by Physician is interpreted as *acute* ST-Elevation Myocardial Infarction (STEMI).
❒	❒	The patient is in the emergency department and not admitted to the hospital.

If no to either, do not utilize 9-1-1, contact a private ambulance to transport patient. If meets **both** criteria, follow procedure below:

- ❒ Transmit positive STEMI ECG to STEMI Receiving Center (SRC) for review by the SRC Physician.
- ❒ ED Physician: Calls SRC Physician to discuss patient.
- ❒ Verify transfer is accepted by SRC.
  - ❒ Physician accepted patient.
  - ❒ Facility has bed and cath lab available.
- ❒ Determine, in consultation with SRC Physician, need for EMERGENT PCI.

  For NON-emergent PCI (e.g. urgent or NSTEMI), arrange for appropriate level of care transport (BLS, ALS or RN) via private ambulance. ***Do not call 9-1-1*** and follow hospital policy for transfer.
- ❒ Immediately prepare patient for transport: Copy ED records including all ECGs, initial EMS Report Form including field ECG when applicable, labs, relevant diagnostic imaging, etc.
- ❒ Ensure hospital-specific transfer paperwork completed.
- ❒ For **EMERGENT PCI ONLY**, if ETA is greater than 10 minutes for private ambulance transport, call 9-1-1 for transport (after patient and paperwork is prepared).
- ❒ ED RN: Calls SRC and gives patient report to accepting RN or house supervisor.

Patient Name

Medical Record # Sending Hospital

Receiving Hospital Accepting MD

Report given to

PROVIDE COPY TO TRANSPORTING AGENCY

Completed by (print): _____ Signature: _____

Date: _____

EMERGENCY DEPARTMENT INTERFACILITY TRANSFER
DRAFT CHECKLIST FOR TRAUMA RE-TRIAGE DRAFT

9-1-1 Trauma Re-Triage Checklist

Yes No

❒ ❒ Patient meets Trauma Re-Triage Criteria, circle criteria(s) met:

Perfusion:
- Persistent signs of poor perfusion
- Need for immediate blood replacement

Respiratory
- Intubation required

GCS/Neurologic
- GCS < 9
- GCS deteriorating by 2 or more during observation

Anatomic
- Penetrating injuries to head, neck, chest, or abdomen
- Neurovascular compromise or loss of pulses to extremities

Provider Judgment
- Patients with high likelihood of needing emergent life or limb saving interventions within 2 hours, as determined by the emergency physician

❒ ❒ Patient is in the emergency department and not admitted to the hospital.

If no to either, do not utilize 9-1-1, contact a private ambulance to transport patient. If meets **both** criteria, follow procedure below:

❒ ED physician: Calls designated Trauma Center for a "9-1-1 Trauma Re-Triage" and speaks to Trauma Surgeon or ED Physician.

❒ Verify transfer is accepted by the Trauma Center.
- ❒ Physician accepted patient.
- ❒ Facility has capacity.

❒ Immediately prepare patient for transport: Copy ED records initial EMS Report Form including field ECG when applicable, labs, relevant diagnostic imaging, etc.

❒ Ensure hospital-specific transfer paperwork completed.

❒ Call 9-1-1 for transportation when patient is ready for transport. If patient **does not meet** the above trauma re-triage criteria, ***do not call 9-1-1***, arrange for private ambulance transport.

❒ ED RN: Calls Trauma Center and provides report to accepting RN or house supervisor.

Patient Name

Medical Record # Sending Hospital

Receiving Hospital Accepting MD

Report given to

PROVIDE COPY TO TRANSPORTING AGENCY

Completed by (print): _____ Signature: _____

Date: _____

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

Treatment Protocol: BASE CONTACT REQUIREMENTS **Ref. No. 1200.2**

PRINCIPLES:

1. Base Contact is made by paramedics to establish online medical direction for additional guidance on field care beyond what is contained in the offline treatment protocols.

2. Once the patient is no longer present and under the care of the paramedic medical direction is not needed. Therefore, this policy does not apply and Base Contact is not required.

3. Base Contact for all patients shall be made according to the requirements below and at the judgment of the treating paramedic. Access to online medical direction is not limited to those conditions listed below.

4. For children 13 to 36 months of age, Base Contact and/or transport is required, except those with no medical complaint or with isolated minor extremity injury.

5. Children less than or equal to 12 months of age must be transported in accordance with *Ref. No. 510*, regardless of provider impression or field treatment rendered, and if a parent or caregiver refuses transport, Base Contact shall be made prior to signing the patient out Against Medical Advice (AMA).

6. Base Contact criteria below still apply if the patient is on scene and refusing transport (AMA). This includes parents or legal guardians who refuse transport of a pediatric patient.

7. This document provides a quick reference list for Base Contact requirements; it does not replace the treatment protocols or the guidance there within, which shall be followed at all times unless otherwise directed by online medical direction.

GUIDELINES:

1. Base Contact is required when consultation with the base would be helpful such as:

    a. Patient presentation renders the provider impression and appropriate treatment protocol unclear

    b. Additional or unlisted treatments are required

    ~~b.~~c. Multiple casualty incidents when guidance is needed on management priorities and/or patient destination

~~2. Base Contact is required when five or more patients require transport (contacting the Medical Alert Center constitutes Base Contact).~~

~~3.~~2. Base Contact is required for children who meet transport guidelines to a Pediatric Medical Center *(Ref. 510)*

~~4.~~3. Base Contact is required for patients in traumatic full arrest who do not meet criteria for determination of death per *Ref. 814*. In these instances, Base Contact shall be made with the Trauma Center.

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~~5.~~4. Base Contact is required for the following provider impressions in all patients:

a. Agitated Delirium

b. Anaphylaxis

c. Cardiac Arrest – Non-traumatic (unless patient meets determination of death by Ref. 814)

d. Childbirth

e. Dystonic Reaction

f. Hypotension

g. Respiratory Failure

h. Shock

i. Stroke / CVA / TIA

~~6.~~5. Additionally, Base Contact is required for the following provider impressions in pediatric patients:

a. BRUE

b. Chest Pain – Suspected Cardiac / Chest Pain - STEMI

c. Pregnancy/Labor

d. Newborn

~~7.~~6. Base Contact is required for the following provider impressions under the specified conditions:

a. Airway Obstruction
- Severe respiratory distress or respiratory arrest

b. Altered Level of Consciousness (ALOC)
- Persistent ALOC of unclear etiology

c. Cardiac Dysrhythmia
- Rapid atrial fibrillation with poor perfusion
- Symptomatic bradycardia
- Wide complex tachycardia

d. Medical Device Malfunction
- Ventricular Assist Device (VAD) malfunction

e. Overdose / Poisoning / Ingestion
   - If signing out AMA

f. Pregnancy Complication
   - >20 weeks with vaginal bleeding

g. Respiratory Distress (of any etiology e.g. Bronchospasm, Pulmonary Edema, Other)
   - Severe respiratory distress unresponsive or not amenable to CPAP
   - Unmanageable airway

h. Seizure
   - Pregnant patient
   - Status epilepticus

i. Submersion / Drowning
   - ALOC
   - Decompression illness

j. Traumatic Injury
   - Crush syndrome
   - Prolonged entrapment >30 minutes
   - Trauma criteria or guidelines met
   - Traumatic arrest not meeting criteria for determination of death per Ref. 814

~~8.~~7. Base Contact is required concurrently when the following treatments are initiated:

a. Adenosine in pediatric patients

b. Cardioversion

c. Push-dose epinephrine

d. Transcutaneous pacing

~~9.~~8. Base Contact is required prior to initiating the following treatments:

a. Additional dosing of normal saline or medications (e.g., midazolam, opiate analgesia) after the maximum dose is administered per protocol

b. Calcium chloride for patients with calcium channel blocker overdose

c. Cardioversion of a patient with adequate perfusion, or awake with a narrow complex tachycardia, or any atrial fibrillation

d. Midazolam for treatment of agitation in a patient with behavioral/psychiatric crisis

e. IO placement beyond the indications listed in *MCG 1375*

f. Sodium bicarbonate for symptomatic bradycardia with suspected hyperkalemia or for dysrhythmia due to possible tricyclic antidepressant or other toxic overdose

g. Transcutaneous pacing if HR >40

Treatment Protocol: CARDIAC DYSRHYTHMIA - BRADYCARDIA **Ref. No. 1212-P**

Base Hospital Contact: Required for all patients with symptomatic bradycardia

1. Assess patient's airway and initiate basic and/or advanced airway maneuvers prn *(MCG 1302)*

2. If foreign body suspected, perform direct laryngoscopy for foreign body removal and treat in conjunction with *TP 1234-P, Airway Obstruction*

3. Administer **Oxygen** prn *(MCG 1302)*
   High-flow Oxygen 15L/min for poor perfusion ❶

4. Initiate cardiac monitoring *(MCG 1308)*
   Perform 12-lead ECG if dysrhythmia suspected prn

5. For poor perfusion:
   Begin bag-mask-ventilation (BMV) ❶

6. Establish vascular access prn *(MCG 1375)*

7. Administer **Normal Saline 20mL/kg IV/IO rapid infusion** per *MCG 1309*

8. For persistent poor perfusion and alert: ❷
   Epinephrine (0.1mg/1mL) 0.01mg/kg slow IV/IO push, dose per *MCG 1309*
   Repeat every 3-5 min
   CONTACT BASE for Physician Consultation concurrent with above treatment

9. For persistent poor perfusion and ALOC: ❷
   Begin Chest compressions
   Epinephrine (0.1mg/1mL) 0.01mg/kg slow IV/IO push, dose per *MCG 1309*
   Repeat every 3-5 min
   CONTACT BASE for Physician Consultation concurrent with above treatment

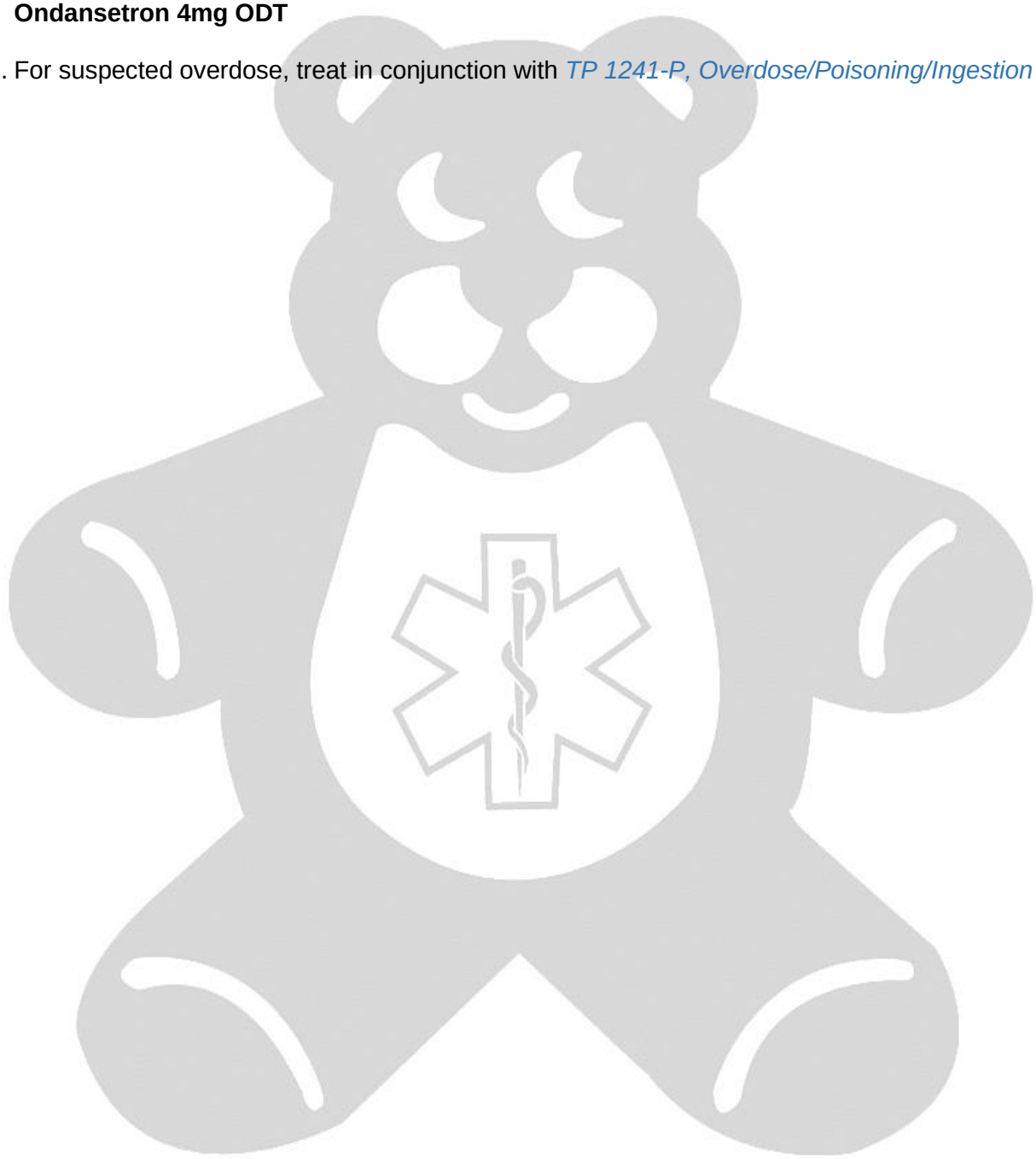
10. If suspected AV Block or patient unresponsive to epinephrine: ❸
    Atropine (0.1mg/mL) 0.02 mg/kg IV/IO push, dose per *MCG 1309*
    May repeat x1 in 5 min

11. Consider **Transcutaneous Pacing (TCP)** for HR ≤ 40 with continued poor perfusion *(MCG 1365)*
    For infants and young children place pacing pads anterior and posterior chest; for older children place as per adult patients ❹
    Recommended initial settings: rate 70 ~~70~~bpm~~/current 40 0mA ((100 bpm/40mA for children if <~~ 12 months old), initial current 40 mA and slowly increase mAs until capture is achieved
    CONTACT BASE concurrent with initiation of TCP

    If TCP will be utilized for the awake patient, consider sedation and analgesia
    For sedation:
    Midazolam (5mg/mL) 0.1mg/kg IV/IO or **0.2mg IM/IN**, dose per *MCG 1309*
    May repeat in 5 min prn x1 with Base order, maximum single dose 5mg
    For pain management: refer to *MCG 1345, Pain Management*
    Dose per *MCG 1309*

12. For nausea or vomiting in patients ≥ 4 years old:
    Ondansetron 4mg ODT

13. For suspected overdose, treat in conjunction with *TP 1241-P, Overdose/Poisoning/Ingestion* ❺



SPECIAL CONSIDERATIONS

❶ Management of oxygenation and ventilation is the most important aspect of treatment of bradycardia in children. Squeeze the bag mask device just until chest rise is initiated and then release; state "Squeeze, Release, Release" to prevent hyperventilation. Young athletes, typically adolescents may have normal resting heart rates < 60 bpm, treat only if signs of poor perfusion.

❷ For pediatric patients with bradycardia (HR <60 bpm) unresponsive to bag-mask ventilation and continued poor perfusion who remain alert, support perfusion with fluid resuscitation and epinephrine administration. For patients with persistent poor perfusion and ALOC, begin chest compressions, administer epinephrine and assess need for TCP. If you have concerns about initiating these therapies contact Base Physician for further guidance.

❸ Potential causes of unresponsiveness to epinephrine in children include increased intracranial pressure, beta blocker/calcium channel overdose, hypothyroidism, infection, congenital heart disease, and sleep apnea where administration of atropine could be of theoretical benefit.

❹ There is minimal data on the use of TCP in infants and children in the out-of-hospital setting. Patients unresponsive to BMV and epinephrine may be candidates. Base Physician consultation is recommended in these patients.

❺ Consider calcium channel blocker and beta blocker overdose in patients with bradycardia and hypotension. Ask about potential exposures including medications in the home. Hyperglycemia is a common finding with calcium channel blocker overdose.

Treatment Protocol: SEIZURE **Ref. No. 1231-P**

Base Hospital Contact: Required for status epilepticus or pregnant patients

1. Assess airway and initiate basic and/or airway maneuvers prn *(MCG 1302)* ❶
2. Administer **Oxygen** prn *(MCG 1302)*
3. Assess for signs of trauma
   If traumatic injury suspected, treat in conjunction with *TP 1244-P, Traumatic Injury*
4. Initiate cardiac monitoring prn *(MCG 1308)*
5. Establish vascular access prn *(MCG 1375)*
6. If seizure stops spontaneously prior to EMS arrival and no seizure witnessed by EMS:
   Document Provider Impression – *Seizure - Post*
7. For active seizure witnessed by EMS: ❷❸

   0-16 months (Gray, Pink, Red)
   Midazolam (5mg/mL) 0.2mg/kg IM/IN, dose per *MCG 1309*
   Repeat x1 in 2 min prn, up to 2 doses prior to Base contact

   17 months – 5 years (Purple, Yellow, White if age unknown)
   Midazolam (5mg/mL) 2.5 mg or 0.5mL IM/IN
   Repeat x1 in 2 min prn, up to 2 doses prior to Base contact

   6-11 Years (Blue, Orange, Green if age unknown)
   Midazolam (5mg/mL) 5mg or 1mL IM/IN
   Repeat x1 in 2 min prn, up to 2 doses prior to Base contact

   ≥12 years (Adult dosing)
   Midazolam (5mg/mL) 10 mg or 2mL IM/IN
   Single dose prior to Base contact

   CONTACT BASE for persistent seizure and for additional medication orders: ❹
   May repeat **Midazolam** as above, maximum total of 3 doses or 20 milligrams, whichever is less.

   Document Provider Impression – *Seizure – Active*, even if seizure spontaneously resolves
8. For persistent seizure or persistent ALOC:
   Check blood glucose
   If < 60mg/dL or > 250mg/dL, treat in conjunction with *TP 1203-P, Diabetic Emergencies*

SPECIAL CONSIDERATIONS

❶ Children with seizure may develop apnea; therefore, monitor oxygenation and ventilation including continuous pulse oximetry during seizure and after treatment with midazolam. Be prepared to initiate BMV.

❷ Active seizures, including febrile seizures, may include tonic and/or clonic activity or focal seizure with altered level of consciousness. Eye deviation, clenched jaw, lip smacking or focal twitching may be subtle signs of seizure.

❸ Seizures may occur as a result of underlying medical problems or toxic ingestions. Please make every effort to obtain a medical history and determine all medications/drugs that the patient may have taken.

❹ Vital signs vary by age and normal ranges can be found in *MCG 1309*. Any pediatric patient with vital signs outside the normal range for age should be considered potentially ill and transported to an EDAP or PMC if criteria are met. Pediatric patients who continue to seize after administration of midazolam should be transported to a PMC.

Medical Control Guideline: DRUG REFERENCE – MIDAZOLAM **Ref. No. 1317.25**

Classification

Sedative, benzodiazepine

Prehospital Indications

Agitated Delirium: patients requiring restraints for patient and provider safety
Behavioral / Psychiatric Crisis: patients requiring restraints for patient and provider safety
Cardiac Dysrhythmia: sedation prior to and/or during synchronized cardioversion or transcutaneous pacing
Sedation and amnestic agent for patients receiving manual/mechanical ventilation if already intubated
Seizure - Active

Adult Dose

Agitated Delirium / Behavioral / Psychiatric Crisis

5mg (1mL) IM/IN/IV, repeat x1 in 5 min prn, maximum total dose prior to Base contact 10mg for Agitated Delirium (Psychiatric Crisis requires Base order prior to any medication administered)

Cardiac Dysrhythmia - sedation prior to synchronized cardioversion / transcutaneous pacing

5mg (1mL) slow IV/IO push/IM/IN, may repeat x1 in 5 min prn, maximum total dose prior to Base contact 10mg

Seizure - Active

5mg (1mL) IV/IO, repeat x1 in 2 min prn, maximum total dose prior to Base contact 10 mg
10mg (2mL) IM/IN, contact Base for additional dosing
With Base Contact may repeat as above up to a maximum total dose of 20mg

Pediatric Dose

Agitated Delirium / Behavioral / Psychiatric Crisis

0.1mg/kg (5mg/mL) IV or **0.2mg/kg (5mg/mL) IM/IN**, dose per *MCG 1309*, repeat x1 in 5 min, maximum single dose 5mg, maximum total dose prior to Base contact 10mg for Agitated Delirium (Psychiatric Crisis requires a Base order prior to any medication administered)

Cardiac Dysrhythmia - sedation prior to synchronized cardioversion / transcutaneous pacing

0.1mg/kg (5mg/mL) IV/IO or **0.2mg/kg (5mg/mL) IM/IN**, dose per *MCG 1309*, repeat dosing every 5 min prn per Base order, maximum single dose 5mg

Seizure - Active

0-16 months (Gray, Pink, Red)
0.2mg/kg (5mg/mL) IM/IN, dose per *MCG 1309*
Repeat x1 in 2 min prn, up to 2 doses prior to Base contact

17 months – 5 years (Purple, Yellow, White if age unknown)
2.5 mg or 0.5mL IM/IN repeat x1 in 2 min prn
Repeat x1 in 2 min prn, up to 2 doses prior to Base contact

6-11 Years (Blue, Orange, Green if age unknown)
5mg or 1mL IM/IN repeat x1 in 2 min prn
Repeat x1 in 2 min prn, up to 2 doses prior to Base contact

≥12 years (Adult dosing)
10 mg or 2mL IM/IN repeat x1 in 2 min prn,
Single dose prior to Base contact

May repeat **Midazolam** as above, maximum total of 3 doses or 20 milligrams, whichever is less

Mechanism of Action

Binds to receptors at several sites within the CNS, potentiates GABA receptor system which produces anxiolytic, anticonvulsant, muscle relaxant, and amnesic effects.

Pharmacokinetics

Onset 3-5 min IV, 15-20 min IM, 6-14 min IN

Duration 1-6 hours IV/IM

Contraindications

Respiratory depression
Shock / Poor perfusion (see prehospital considerations)

Interactions

Risk of respiratory or central nervous system depression, increases when used with diphenhydramine, fentanyl, morphine, or other opiate or sedative medications

Adverse Effects

Hypotension
Respiratory depression / arrest

Prehospital Considerations

- Closely monitor respiratory and cardiac function after administration
- Caution in patients with suspected alcohol intoxication as midazolam can increase the risk for respiratory depression
- For patients with agitated delirium and violent behavior, IM/IN administration is recommended over IV for the initial dose for the safety of EMS personnel.
- If available, waveform $EtCO_2$ monitoring should be instituted after administration.
- For patients who are poorly perfusing and require sedation for safety (e.g., prevent inadvertent extubation) or require a painful procedure (e.g., transcutaneous pacing), one should use judgment in consultation with Base.

Medical Control Guideline: TRANSCUTANEOUS PACING

PRINCIPLES:

1. Transcutaneous Pacing (TCP) provides temporary external cardiac pacing for the treatment of symptomatic bradycardia for patients who are unresponsive to airway management or drug therapy.

2. TCP should not be initiated on patients in asystole.

3. Do not delay TCP for IV access if the patient has poor perfusion.

4. Strongly consider sedation for pacing discomfort. Refer to *TP 1212 or 1212-P, Cardiac Dysrhythmia - Bradycardia* for drugs and dosages.

5. All TCP equipment must be used and maintained in accordance with the manufacturer's guidelines.

GUIDELINES:

1. Explain the procedure to the patient, family member, and/or caregiver.

2. For awake patients, provide sedation and analgesia unless contraindicated. Contraindications include RR < 10 for adults (for pediatrics < lower limit for color code on *MCG 1309*) or unresponsiveness.

3. Place pacing pads in anterior (black)/posterior (red) (A/P) position and connect ECG cable.

4. Activate the pacing device, set the initial pacing rate at ~~30 beats per minute (bpm) above the intrinsic rate or~~ 70 bpm ~~for adults and~~or ~~-~~100 bpm for children less than 12 months of age.

5. Set the current at 40 milliamperes (mAs). Slowly increase the mA until electrical and mechanical capture is achieved as evidenced by a **palpable pulse** that correlates with the paced heart rate on the monitor. Once capture is noted increase the mAs by 10mAs to ensure ongoing capture.

6. If current is increased to 120-130 mAs without capture; reposition the pacer pads on the upper right chest and at the apex of the heart and reattempt pacing and capturing as above.

7. If the patient continues to exhibit signs and symptoms of poor perfusion, increase the rate by 10 bpm until adequate perfusion is achieved. Maximum rate is 100 bpm for adults and 120 bpm for children.

Medical Control Guideline: TRAUMATIC HEMORRHAGE CONTROL

PRINCIPLES:

1. Applying direct continuous pressure to the area of bleeding should be the first management technique to control external bleeding.

2. Tourniquets have been demonstrated to be safe and effective when used appropriately and can be lifesaving.

3. A hemorrhage control tourniquet should be used if external bleeding from an extremity cannot be controlled by direct pressure to an exposed wound.

4. Poorly perfusing patients with an isolated penetrating extremity injury and those with amputations or mangled extremities should have a tourniquet applied even if minimal to no visible bleeding.

5. Tourniquet application may be the initial method to control extremity bleeding when scene safety concerns, resource limitations, or patient positioning/entrapment preclude direct pressure application.

6. Tourniquet application frequently results in severe pain. Pain management should be provided as necessary.

7. Hemostatic Agents are only to be utilized by approved providers.

8. Tranexamic acid (TXA) acts to prevent clot breakdown and improves outcomes for trauma patients with hemorrhagic shock if administered within 3 hours of injury, with increasing benefit the sooner it is administered.

GUIDELINES:

1. First, remove any bandages applied by patient or bystanders (this may include tourniquets if they are inappropriately applied, ineffective or obstructing care), identify the area of bleeding, and apply continuous, firm, focused pressure directly to source of bleeding using gauze or hemostatic agents as appropriate.

2. If unable to control hemorrhage with direct pressure, or if scene or patient safety precludes application of direct pressure, prepare for tourniquet application.

3. Explain usage of tourniquet to the patient if patient's condition allows.

4. Follow manufacturer's instructions for application of the tourniquet.

5. Apply tourniquet 2-3 inches proximal to the bleeding site but not over a joint or the hemorrhaging injury.

6. Ensure that bleeding is stopped and distal pulses are absent after the application of the tourniquet.

7. Once a tourniquet is applied, the patient should be reassessed at least every 5 minutes

for continued absence of distal pulse and/or bleeding.

8. If bleeding is not controlled with one tourniquet, a second tourniquet may be applied proximal to the first tourniquet. Do not remove the first tourniquet after applying the second tourniquet.

9. Once a tourniquet is properly applied by EMS it should not be loosened or removed without physician approval.

10. Provide analgesia when tourniquets are placed per *MCG 1345* and refer to *TP 1244 or 1244-P, Traumatic Injury* and *TP 1242 or 1242-P, Crush Injury/Syndrome* as appropriate for dosing.

11. For adult patients within 3 hours of injury and uncontrolled external/extremity bleeding despite applying pressure, and use of hemostatic agents and tourniquets where appropriate, administer TXA per MCG 1317.41.

12. For adult patients within 3 hours of injury with suspected uncompressible truncal hemorrhage and systolic blood pressure (SBP) <90mmHg OR heart rate>SBP, administer TXA per MCG 1317.41.

13. Paramedics shall make Base hospital contact and transport in accordance with *Ref. 1200.1* and *Ref. 502, Patient Destination*. In general, patients requiring tourniquets and/or TXA should be transported to a Trauma Center.

14. Paramedic shall document the time tourniquet applied on the tourniquet and on the EMS electronic Patient Care Record (ePCR). Remaining patient documentation will be in accordance with *Ref. 606, Documentation of Prehospital Care*.