



COUNTY OF ORANGE HEALTH CARE AGENCY
Regulatory/Medical Health Services
EMERGENCY MEDICAL SERVICES
405 W. Fifth Street, Suite 301A, Santa Ana, CA 92701
(714) 834-3500



COUNTY PREHOSPITAL ADVISORY COMMITTEE

Wednesday, November 9, 2022 – 1:00 p.m.

Location: Health Care Agency, Conference Room 433
405 W. 5th St., Santa Ana, CA 92701

Parking is available in lot P-8. Bring in your parking ticket to receive a parking validation ticket to exit the garage.

THIS COMMITTEE MEETING IS OPEN TO THE PUBLIC, YOU MAY ADDRESS THE COMMITTEE ON ANY AGENDA ITEM BEFORE OR DURING CONSIDERATION OF THAT ITEM, AND ON OTHER ITEMS OF INTEREST WHICH ARE NOT ON THE AGENDA, BUT WHICH ARE WITHIN THE SUBJECT MATTER JURISDICTION OF THE COMMITTEE.

AGENDA

I. CALL TO ORDER

II. INTRODUCTIONS/ANNOUNCEMENTS

III. APPROVAL OF MINUTES

- *Action Item: Approval of September 13, 2022 minutes* (Attachment #1)

IV. OCEMS REPORT

- OCEMS Report
- Ambulance Patient Off-Load Time (APOT) Report (Attachment #2)
- Bi-Directional Data Exchange Project

V. UNFINISHED BUSINESS

VI. NEW BUSINESS

- Pediatric Surge Plan
- Updated Hospital Designations (Attachment #3)
- ED Diversion & CVRC and SNRC ReddiNet Diversion (Attachment #4)
- Update of I-20 (Attachment #5)
- Ebola

VII. ADVISORY COMMITTEE REPORTS

- Base Hospital Coordinators
- Orange County Fire Chiefs EMS Committee
- Orange County ED Nursing Leadership
- Facilities Advisory Committee

VIII. NEXT MEETING – Wednesday, January 11, 2023, 1:00 pm

- Dates of County Prehospital Advisory Committee Dates (Attachment #6)

IX. ADJOURNMENT



COUNTY PREHOSPITAL ADVISORY COMMITTEE

Wednesday, September 14, 2022 – 1:00 p.m.
Meeting held via Zoom Video Conferencing

MINUTES

MEMBERSHIP / ATTENDANCE

MEMBERS

- ☒ Theodore Heyming, MD
- ☐ Jon Cline MD
- ☒ Robert Granata, MD
- ☐ Matthew Hunt, MD (excused)
- ☒ Iksoo Kang, MD
- ☐ Eric McCoy, MD (excused)
- ☒ David Ngo, MD
- ☐ Kelly Unger, MD (excused)
- ☐ Robert Katzer, MD
- ☐ Claus Hecht MD
- ☒ Shira Schlesinger, MD

REPRESENTING

- BHPD – Children's Hospital of Orange County
- BHPD – Mission Hospital
- BHPD – Orange County Global Med. Ctr.
- BHPD – Hoag Hospital
- BHPD – St. Jude Medical Center
- BHPD – UCI Medical Center
- BHPD – Huntington Beach Hospital
- BHPD – Huntington Beach Hospital
- Anaheim Fire & Rescue
- Orange County Fire Authority
- Newport Beach Fire Department

MEMBERS

- ☐ Capt. Brandon Grinstead
- ☒ Jeff Lopez, EMT-P
- ☐ Dave Barry, EMT-P
- ☒ Patrick Dibb
- ☐ Patty Glead, RN (excused)
- ☐ Justin Horner, EMT-P
- ☒ Kim Nichols, RN

REPRESENTING

- Orange County Fire Authority
- Representing Huntington Beach Fire Dept.
- Anaheim Fire & Rescue
- EMT Training Programs
- Paramedic Training
- Fire Chiefs' EMS Committee
- ED Nursing Leadership

- ☒ Julia Afrasiabi, RN
- ☒ Ruth Clark, RN
- ☒ Laura Cross, RN
- ☒ Meghann Ord, RN
- ☒ Christine Waddell, RN
- ☒ Heidi Yttri, RN
- ☒ Kim Zaky, RN

- BHC – UCI Medical Center
- BHC – Orange County Global Med. Ctr.
- BHC – Mission Hospital
- BHC – Hoag Memorial Hospital
- BHC – Huntington Beach Hospital
- BHC – St. Jude Medical Center
- BHC – Children's Hospital of Orange County

OCEMS STAFF PRESENT

- Carl Schultz, MD
- Gagandeep Grewal, MD
- Danielle Ogaz
- Laurent Repass, NRP
- Jason Azuma, EMT-P
- Philip Grieve, EMT
- Erica Moojen
- Eileen Endo
- Lisa Wilson
- Irma Chavando
- EMS Medical Director
- Associate EMS Medical Director
- EMS Systems & Standards Chief
- EMS Information Systems Chief
- OC-MEDS Coordinator
- EMS ALS Coordinator
- EMS Office Supervisor
- Office Specialist
- Information Processing Technician
- EMS Staff Assistant

GUESTS PRESENT

NAME

Trenton Amaro
Shelley Brukman, RN
Lori Hrowal

REPRESENTING

- Lynch Ambulance Service
- Children's Hospital of Orange County
- Lynch Ambulance Service

MEMBERS

Patrick Powers, EMT-P
Robert Selway, RN
Jacob Wagoner

REPRESENTING

- City of Placentia
- St. Joseph Hospital
- Lynch Ambulance Service

I. CALL TO ORDER

The meeting was called to order by Iksoo Kang, MD, Chair.

II. INTRODUCTIONS/ANNOUNCEMENTS

Philip Grieve is the new ALS Coordinator with an extensive background in EMS and will be invaluable member of this team. David Johnson is back on contract and working part-time.

III. APPROVAL OF MINUTES

Minutes from the May 11, 2022 meeting was approved as submitted.

IV. OCEMS REPORT

• Medical Director's Report

Dr. Schultz we have been following a heatwave emergency and are supporting Public Health. Vicky Sweet, our former ALS Coordinator, monitored and tracked the resolved trends.

• Health Emergency Management (Disaster Report):

Dr. Grewal COVID-19 positivity case rates are coming down to less than 10 cases per 100k. Hospitalizations are less than half of our peak of 169 and 26 in the ICU. Many of the hospitalizations are incidentals, not due to COVID. The bivalent COVID booster that covers BA4 and BA5 variants and the original strains is

available as of last week. BA4.6 variant is starting to make inroads, which is a big concern that might be resistant to Evusheld treatment. We will keep an eye on these cases.

Monkeypox has 60k cases worldwide, 22k cases in the US, 4k in California, and 200 cases in Orange County. Public Health has been stepping up efforts to get vaccinations out to the high-risk population. By far, most cases are men who have sex with men; it is a contact disease, not an STD.

CDC warns about the recent uptake of rhinovirus and enterovirus infections in kids requiring admission. I reached Shelley/CHOC, and they see many cases due to the virus. They are trying to determine if the increase is seasonal.

Shelley – we are in the preload face of looking at the data.

We also have a higher risk of wildfires in the area. We have been getting notifications from Edison that they may initiate the Public Safety Power Shutoff (PSPS). We notified some healthcare facilities in the (PSPS) zones of a potential outage. Reminder to have a plan in place for fuel and a response plan.

The AOC is still helping with logistic support. Mobile POD vaccination and monkeypox vaccines. Public Health is dealing with most of that inhouse. We are accepting limited resource requests for a surplus of PPE, and we must reduce inventory in our warehouse. If you need gowns and face shields, reach out to us.

We do have BinaxNOW professional use test kits in significant supply. They are readily available for those with clia waivers. To test in your agency-associated facilities. We have plenty of over-the-counter test kits, but we are trying to reserve those for disadvantaged and high-risk populations.

We have newly hired staff trying to get up to speed. Internally we are planning drills and exercises and looking to update some of our plans. In addition, we are working on our grant cycle to fulfill some of the requirements for submitting our budgets and seeking approvals.

HCCOC EMS Advisory Committee has been rescheduled for Wednesday, 9/28/22, at 10:30 am hybrid option.

Kim/CHOC – we are in the process of distributing the flyer; disaster burn management discussion, but we want to get together to have the same robust participation. We were looking for ED staff members, Nurses, Techs, and members of the Fire agency to meet and go over drills and share best practices and tools; it's good networking. Teresa/UCI is chairing it, and Dr. Hecht is actively involved.

The Coalition is currently at California Hospital Association (CHA) Disaster Conference. We seek funding approval to send people to the National Healthcare Coalition Preparedness Conference; some topics include EMS in disaster and healthcare Coalition.

Upcoming Conferences:

- EMSA Trauma Summit, October 6, 2022
- National Pediatric Disaster Conference, October 27-28, 2022, Arizona (Virtual)
<https://coyotecampaign.org/NPDconference-2022/>
- EMS for Children Virtual Education Forum, November 3, 2022
- National Healthcare Coalition Preparedness Conference, November, 29 – December 1, 2022, Anaheim Marriott
<https://web.cvent.com/event/8b94d7c7-bef7-4f4c-bd0c-451940b01ab4/websitePage:0d83cf6-9693-456f-8682-1d0ef8eb3a72?locale=en-US&tm=AOGVCXnLtFtsb5YA33EfqjTsujoH8bk6CO-SyNIMJeE>

The 2023 Ambulance permit inspection are under way. 22 permitting Ground Ambulance providers and 1 permitting Air provider. 401 permitting Ground Ambulances and 3 Air Ambulances.

- **Ambulance Patient Off-Load Time:**

Laurent Repass reported on the APOT reports for June and July. Today we sent out the August APOT report. July was our busiest transport month, with 12-15 hospitals, APOT is over 30 minutes, and a few are close to 60 minutes. 16,379 EMS transports. APOT of the 90th percentile countywide was 36 minutes from June through August. August 15,962 EMS transports for the month. We have a new dashboard on the website that shows daily APOT results. In addition, there is also a monthly diversion report that is on the website as well and a systemwide diversion dashboard.

- **The Bi-Directional Data Exchange Project**

Laurent Repass - The Bi-Directional Data project is funded by CDC intended to facilitate and enable data exchange between Electronic Health Records ERC used by all EMS providers, known as OCMEDS and connect that system to each electronic health record used by hospitals throughout the County. We received letters of support from 24 hospitals. We have signed agreements from 12 hospitals. We are actively working with three hospital groups UCI, CHOC, and Prime Healthcare hospitals. We are finalizing nondisclosure agreements and security IT reviews between software vendors, and once this is complete, we can begin the technical implementation and earnest. In the next 3 weeks, we will start technical work with UCI. The project is due to be complete by June 30, 2023.

V. **UNFINISHED BUSINESS**

- *None discussed.*

VI. **NEW BUSINESS**

- **New Policies/Procedures Posted:**

Dr. Schultz – we posted 8 updated policies, procedures, and standing orders. The attached letters for each where the changes are what the difference were. We will be incorporating language from the IFT/ALS standing orders into existing policies and standing orders, with plans to sunset the IFT/ALS specific documents on April 1, 2023. We will keep the old IFT/ALS documents on the books for the usual 6-month period while everyone learns to use the updated information.

- **IFT/ALS Base Hospital Contact**

Dr. Schultz – Base Hospital contact is voluntary for IFT and 911 Paramedics when they engage in IFT transfers. Previously the IFT/ALS Paramedics were prohibited from making Base Hospital contact, and 911 was required to reach the base hospital.

Laura/Lynch EMS – IFT Medics and Base Hospital contact, are we doing those calls through radio or phone. Dr. Grewal explained the process.

- **Policy Updates with Letter #4427 – October 1, 2022**

Attached in packet.

- **Letter #4410 Hospital Bypass APOT**

Dr. Schultz – Ambulances may now bypass their nearest ERC regardless of diversion status if it has a 90% APOT of 60 minutes or more, and travel to the next closest most appropriate ERC with lower APOT numbers even if it is outside their normal 20-minute transport time.

Kim/Placentia Linda – we have noticed an increase in calls on our Paramedic line asking how many ambulances are waiting on our bay and asking for wait times.

Dr. Schultz – The memo assesses APOT, which is not the information I want being provided.

Patrick Powers – will OCEMS be augmented to include this reason as the destination decision reason of being APOT greater than 60 minutes standard?

Dr. Schultz – deferred to Laurent; we do not have anything like that yet, but we are meeting on Thursday.

VII. **Advisory Committee Reports**

- **Base Hospital Coordinators** - *Julia Afrasiabi reported:*

We are getting ready to ramp up another MICN class. Ruth Clark has a Blast Injury Lecture on September 15, 2022, at OC Global Bash Auditorium; good opportunity for information and education on not just mass casualty incidents but injuries related to those. Also, in November 2022, we will have our Next No Fear Conference at Mission Hospital, in person (Free).

- **Orange County Fire Chief EMS** – *Jeff Lopez reporting*

This committee met on September 1; we are working on skills and online updates due 10/1/22 mandatory implementation date of all the things that came out in April. In addition, we are finishing up training for the policies that came out. CQI Subcommittee has a new Chair, Captain Adam Novac, Newport Beach Fire.

- **Orange County Nursing Leadership** – *Kim Nichols reporting:*

Unfortunately, our last meeting on July 8, 2022, was canceled. I do not have anything new to report. Our next meeting is on October 14, 2022.

- **Facilities Advisory Subcommittee**

This Committee met on September 13, 2022, and besides the items discussed here at CPAC, we also discussed the policies, procedures, and APOT.

IX. **NEXT MEETING** – Wednesday, November 9, 2022 at 1:00 p.m.

X. **ADJOURNMENT**

With no further business, the meeting was adjourned.



Ambulance Patient Offload Time (APOT-1) Report
July 2022

Hospital	2022 Totals			July 2022				
	Transports	90th Percentile APOT Time (Min:Sec)	Diversion Hours	Transports	90th Percentile APOT Time (Min:Sec)	Mean APOT Time (Min:Sec)	Median APOT Time (Min:Sec)	Diversion Hours
Anaheim Global Medical Center	2,031	35:42	84	381	44:41	18:12	11:52	29
Anaheim Regional Medical Center	3,567	38:02	71	601	39:42	18:39	12:58	61
Chapman Global Medical Center	463	9:37	9	122	12:20	7:06	4:15	8
Children's Hospital of Orange County	2,534	15:05	0	394	12:51	7:13	5:50	0
Foothill Regional Medical Center	634	31:43	25	124	46:30	19:50	10:45	13
Fountain Valley Reg Hosp and MC	4,290	38:02	495	548	38:37	17:19	11:17	210
Garden Grove Hosp and MC	3,111	39:12	159	493	53:10	23:53	15:29	105
Hoag Hospital Irvine	4,562	22:43	638	729	25:23	13:08	10:33	104
Hoag Memorial Hosp Presbyterian	11,936	16:29	147	1,904	16:42	10:03	9:00	30
Huntington Beach Hospital	3,106	39:50	88	490	44:37	19:57	12:47	53
Kaiser Permanente - Anaheim MC	3,126	45:02	202	511	55:00	24:57	17:04	36
Kaiser Permanente - Irvine MC	3,167	36:46	53	498	37:14	19:18	14:48	12
La Palma Intercommunity Hospital	1,936	36:26	5	370	64:55	23:59	11:47	5
Los Alamitos Medical Center	3,982	58:56	403	587	60:13	28:58	20:39	195
Mission Hospital - Laguna Beach	2,262	39:15	105	337	51:50	24:29	17:21	42
Mission Hospital Regional MC	9,196	36:46	497	1,341	34:59	17:57	14:25	144
Orange Coast Memorial MC	3,482	31:57	481	520	35:37	17:24	12:51	164
Orange County Global MC	4,926	27:53	350	668	32:00	14:48	8:11	206
Placentia Linda Hospital	2,954	24:20	18	505	26:00	13:36	8:08	18
Saddleback Memorial MC	5,589	25:02	356	888	25:04	13:52	11:51	96
South Coast Global Medical Center	1,403	22:11	6	275	23:56	12:09	8:28	4
St. Joseph Hospital	7,316	26:54	306	1,145	27:23	13:37	10:03	107
St. Jude Medical Center	8,689	38:05	139	1,343	41:20	20:48	14:57	59
UCI Medical Center	6,617	32:20	1295	795	27:48	11:48	6:22	417
West Anaheim Medical Center	5,186	58:47	162	810	65:36	27:52	19:36	91

Median Hospital 90th Percentile APOT Time 35:42
InterQuartile Range 26:26, 38:22

37:14
26:00, 46:30

OC EMS System Total (Aggregate)	106,065	33:19
OCEMS System Mean APOT Time	16:04	
Standard Deviation	+/- 18:11	
OCEMS System Median APOT Time	10:50	
InterQuartile Range	6:16, 18:42	

16,379	36:00
17:04	
+/- 18:44	
11:20	
6:36, 20:00	

Diversion Hours 2207
Diversion Days 31 of 31
Hospitals/Day Range 6-19/day
Transports w/ APOT 30-60min 1555
Transports w/ APOT >60min 592



Ambulance Patient Offload Time (APOT-1) Report
August 2022

Hospital	2022 Totals			August 2022				
	Transports	90th Percentile APOT Time (Min:Sec)	Diversion Hours	Transports	90th Percentile APOT Time (Min:Sec)	Mean APOT Time (Min:Sec)	Median APOT Time (Min:Sec)	Diversion Hours
Anaheim Global Medical Center	2,374	36:05	92	343	39:00	16:00	9:01	8
Anaheim Regional Medical Center	4,089	38:46	143	522	39:57	19:40	14:56	72
Chapman Global Medical Center	572	9:34	16	109	8:30	5:27	3:53	7
Children's Hospital of Orange County	2,934	15:04	0	400	15:01	8:02	6:43	0
Foothill Regional Medical Center	730	33:56	27	96	48:11	21:42	10:52	2
Fountain Valley Reg Hosp and MC	4,943	40:21	608	653	52:59	22:48	15:08	113
Garden Grove Hosp and MC	3,628	40:00	173	517	46:04	20:10	13:54	14
Hoag Hospital Irvine	5,257	23:39	737	695	28:21	14:44	11:32	99
Hoag Memorial Hosp Presbyterian	13,716	16:27	199	1,780	16:20	10:03	9:03	51
Huntington Beach Hospital	3,562	39:45	131	456	38:41	17:44	10:16	43
Kaiser Permanente - Anaheim MC	3,565	45:52	247	439	52:26	25:48	19:02	45
Kaiser Permanente - Irvine MC	3,636	37:17	63	469	38:18	19:19	15:01	10
La Palma Intercommunity Hospital	2,254	39:38	7	318	59:10	21:37	12:03	2
Los Alamitos Medical Center	4,609	59:18	468	627	63:21	29:17	18:58	65
Mission Hospital - Laguna Beach	2,609	40:11	129	347	46:10	22:54	16:36	24
Mission Hospital Regional MC	10,481	36:36	617	1,285	35:29	17:19	12:55	119
Orange Coast Memorial MC	3,944	31:30	669	462	27:32	16:13	12:57	188
Orange County Global MC	5,681	27:55	416	755	28:11	14:04	8:34	66
Placentia Linda Hospital	3,422	23:25	18	468	18:50	10:43	8:00	0
Saddleback Memorial MC	6,452	25:00	432	863	24:53	14:05	11:36	75
South Coast Global Medical Center	1,688	22:41	8	285	25:10	13:45	8:58	2
St. Joseph Hospital	8,482	27:10	402	1,166	28:22	14:17	10:09	96
St. Jude Medical Center	10,008	38:21	189	1,319	39:42	19:15	13:43	49
UCI Medical Center	7,366	31:59	1669	749	27:59	12:06	6:31	373
West Anaheim Medical Center	6,025	59:20	196	839	64:07	26:56	18:22	34

Median Hospital 90th Percentile APOT Time 36:05 38:18
InterQuartile Range 26:37, 39:48 27:32, 46:10

OC EMS System Total (Aggregate)	122,027	33:39
OCEMS System Mean APOT Time		16:11
Standard Deviation	+/-	18:14
OCEMS System Median APOT Time		10:54
InterQuartile Range		6:18, 18:53

15,962	36:00
	16:57
	+/- 18:33
	11:19
	6:37, 20:05

Diversion Hours 1557
Diversion Days 31 of 31
Hospitals/Day Range 1-16/day
Transports w/ APOT 30-60min 1527
Transports w/ APOT >60min 552



Ambulance Patient Offload Time (APOT-1) Report
September 2022

Hospital	2022 Totals			September 2022				
	Transports	90th Percentile APOT Time (Min:Sec)	Diversion Hours	Transports	90th Percentile APOT Time (Min:Sec)	Mean APOT Time (Min:Sec)	Median APOT Time (Min:Sec)	Diversion Hours
Anaheim Global Medical Center	2,793	37:50	94	419	46:35	19:11	11:46	2
Anaheim Regional Medical Center	4,544	38:40	298	455	38:27	18:16	14:00	154
Chapman Global Medical Center	672	9:34	16	100	9:48	4:56	3:53	0
Children's Hospital of Orange County	3,389	15:06	0	455	15:35	8:07	6:28	0
Foothill Regional Medical Center	837	35:39	31	107	37:23	16:31	11:03	5
Fountain Valley Reg Hosp and MC	5,644	41:38	635	701	49:27	23:16	16:11	27
Garden Grove Hosp and MC	4,120	40:44	193	492	45:06	20:07	13:33	20
Hoag Hospital Irvine	5,849	23:43	928	592	24:23	13:14	11:23	191
Hoag Memorial Hosp Presbyterian	15,481	16:30	240	1,765	16:50	10:06	8:50	41
Huntington Beach Hospital	4,071	40:13	197	509	47:16	21:35	12:47	66
Kaiser Permanente - Anaheim MC	4,060	46:46	281	495	51:23	25:02	18:40	34
Kaiser Permanente - Irvine MC	4,148	38:01	68	512	43:06	20:36	15:02	5
La Palma Intercommunity Hospital	2,559	41:42	14	305	56:06	24:46	13:13	7
Los Alamitos Medical Center	5,196	61:18	563	587	77:50	33:11	20:55	95
Mission Hospital - Laguna Beach	2,931	39:47	141	322	38:33	20:46	15:39	12
Mission Hospital Regional MC	11,800	36:14	719	1,319	33:21	17:29	13:44	102
Orange Coast Memorial MC	4,432	31:55	860	488	33:28	18:04	13:40	191
Orange County Global MC	6,458	27:55	465	777	27:36	13:41	8:47	49
Placentia Linda Hospital	3,912	23:34	28	490	24:22	13:03	8:11	10
Saddleback Memorial MC	7,288	24:52	492	836	23:26	13:55	12:11	60
South Coast Global Medical Center	1,946	22:40	15	258	22:09	12:05	8:34	7
St. Joseph Hospital	9,547	27:28	500	1,065	28:36	14:35	10:00	98
St. Jude Medical Center	11,344	38:15	246	1,336	37:53	19:13	14:45	57
UCI Medical Center	8,128	31:19	2020	762	27:06	11:24	6:44	352
West Anaheim Medical Center	6,843	58:37	231	818	54:36	24:50	18:20	35

Median Hospital 90th Percentile APOT Time 36:14
InterQuartile Range 26:49, 40:21

37:23
24:23, 46:35

OC EMS System Total (Aggregate)	137,992	33:58
OCEMS System Mean APOT Time		16:18
Standard Deviation		+/- 18:16
OCEMS System Median APOT Time		10:59
InterQuartile Range		6:21, 19:00

15,965	35:50
	17:07
	+/- 18:29
	11:45
	6:46, 20:13

Diversion Hours 1622
Diversion Days 30 of 30
Hospitals/Day Range 3-18/day
Transports w/ APOT 30-60min 1539
Transports w/ APOT >60min 553



FACILITIES ADVISORY COMMITTEE
ORANGE COUNTY EMS FACILITY DESIGNATIONS
November 8, 2022

The following hospitals have applied to Orange County Emergency Medical Services (OCEMS) for Emergency Receiving Center (ERC) and/or Specialty status (Cardiovascular Receiving Center/CVRC, Stroke Neurology Receiving Center/SNRC, and Comprehensive Children's Emergency Receiving Center/CCERC) designation or re-designation. This report summarizes the OCEMS review of their applications noting deficiencies, conditions and recommendations. Today, it is presented to the Facilities Advisory Committee for committee endorsement. Physical site visits have been temporarily suspended but focused surveys were completed including key personnel interviews and applicable documents reviewed.

General Findings: The following facilities currently meet the designation requirements for Emergency Receiving Center and Specialty Center designation when applicable. Endorsement considerations of designation are for one to three-year terms or otherwise specified as recommended by committee.

FACILITIES – CONTINUING DESIGNATIONS

Hoag Irvine Medical Center

(Review Period 2019-2022)

Emergency Receiving Center (ERC)

ERC DQ Done: 5/24/2022
Site Survey: Online Only
Program Review: 9/2019 – 1/2022

Criteria Deficiencies: None
Conditions: None
Recommendations: None

CardioVascular Receiving Center (CVRC)

CVRC DQ Done: 5/25/2022
Site Survey: Online Only
Program Review: 9/2019 – 1/2022

Criteria Deficiencies: None
Conditions: None
Recommendations: None

Endorsement Consideration: Three years (January 2022 – February 2025)



**MEDICAL HEALTH SERVICES
EMERGENCY MEDICAL SERVICES**

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Email: TMcConnell@ochca.com

DATE: October 11, 2022

TO: SNRCs
CVRC
Base Hospitals

FROM: Carl Schultz, MD
OCEMS Medical Director

SUBJECT: ED SAT IN REDDINET

CAS

Since April of 2021, OCEMS Policy #310.96 has required that a hospital's SNRC and/or CVRC be placed on diversion when the ERC places itself on ED saturation in ReddiNet. Within this policy, section V.C. Special Circumstances (5) states that if an ERC is listed as closed to ED saturation, this will automatically place the facility's SNRC and/or CVRC on diversion as well. The only exception to this requirement is a transfer from a spoke hospital to the SNRC for direct admission to the stroke center. Up to now, this has not been happening on a reliable basis.

Therefore, to make compliance easier, OCEMS is working with ReddiNet to ensure that this can occur automatically without requiring separate manual intervention within ReddiNet. When implemented, placing the ED on diversion will automatically place the hospital's SNRC and/or CVRC on diversion in ReddiNet. We anticipate this will go live in the next 1-2 weeks. Until this update occurs, when a designated facility places themselves on ED diversion, they must also place themselves on SNRC and CVRC diversion.

CS:cs#4441



ORANGE COUNTY EMERGENCY MEDICAL SERVICES PREHOSPITAL ALS STANDING ORDERS

PEDIATRIC MEDICATION VOLUME DOSE BY WEIGHT

#: I-20
Page: 1 of 5
Org Date: 7/20
Revised: 9/28/2022

3-5 KG NEWBORN	Defibrillation (2-4 J/kg) Cardioversion** (1J/kg)				Normal Vital Signs HR: 100-180 Respirations: 30-60 SBP: >60mmHg			
	8-16 joules 4 joules							
	Medication Concentration	Route	Dose	mLs	Medication Concentration	Route	Dose	mLs
3-5 KG NEWBORN	**Adenosine (1 st dose) 3mg/mL	Rapid IV	0.4 mg	0.1 mL BHO	Glucagon 1mg/mL	IM	0.5 mg	0.5 mL
	**Adenosine (2 nd dose) 3mg/mL	Rapid IV	0.8 mg	0.3 mL BHO	**Hydroxocobalamin 25mg/mL	IV	280 mg Over 15 min	11 mL BHO
	Albuterol 2.5mg/3mL	Neb	2.5 mg	3 mL	Lidocaine 2% 100mg/5mL	IO	2 mg	0.15 mL
	Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	20 mg	0.4 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL	IV/IO	4 mg	0.2 mL
	**Amiodarone (VT w/ pulse) 50mg/mL	IV	20 mg Over 10 min	0.4 mL BHO	Midazolam (Seizure 1 st line) 5mg/mL	IM	0.8 mg	0.16 mL
	Atropine (Bradycardia) 1mg/mL	IV/IO	0.1 mg	0.1 mL	Midazolam (Seizure) 5mg/mL	IV/IO/IN	0.4mg	0.1 mL
	Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.1 mg	1 mL	**Midazolam (Cardioversion) 5mg/mL	IN/IV/IM	0.4mg	0.1 mL BHO
	Atropine (Organophosphate) 1mg/mL	IV	0.1 mg	0.1 mL	**Morphine 4mg/mL	IV carpuject	0.4 mg	0.1 mL BHO <2yrs
	Atropine (Organophosphate) 0.1mg/mL	IV	0.1 mg	1 mL	**Morphine 10mg/10mL	IV carpuject	0.4 mg	0.4 mL BHO <2yrs
	Atropine (Organophosphate) 1mg/mL	IM	0.4 mg	0.4 mL	**Morphine 10mg/mL	IM	0.4 mg	0.05 mL BHO <2yrs
	Dextrose 10% 100 mg/mL	IV	20 mL		Naloxone 0.8mg/2mL	IN/IV/IM	0.4 mg	1 mL
	Diphenhydramine 50mg/mL	IV/IO/IM	4 mg	0.1 mL	Naloxone 1mg/mL	IN/IV/IM	0.4 mg	0.4 mL
	Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.04 mg	0.04 mL	Naloxone 4mg/0.1mL	IN	Single spray	
	Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.04 mg	0.4 mL	Normal Saline 0.9% NaCl	IV/IO	80 mL	
	Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV/IO	0.04 mg	0.4 mL	Normal Saline 0.9% NaCl	Neb	3 mL	
	**Fentanyl 50mcg/mL	IN/IV/IM	8 mcg	0.2 mL BHO <2 yrs	Ondansetron 4mg	ODT	N/A	
					Sodium Bicarbonate 1mEq/mL	IV/IO	4 mEq	4 mL
							1:1 dilution with NS	
	**Base Hospital Order				All milliliters rounded			

6-7 kg 3 MONTHS	Defibrillation (2-4 J/kg) Cardioversion** (1 J/kg)				Normal Vital Signs HR: 100-160 Respirations: 25-40 SBP: >70mmHg			
	12-24 joules 6 joules							
	Medication Concentration	Route	Dose	mLs	Medication Concentration	Route	Dose	mLs
6-7 kg 3 MONTHS	**Adenosine (1 st dose) 3mg/mL	Rapid IV	0.6 mg	0.2 mL BHO	Glucagon 1mg/mL	IM	0.5 mg	0.5 mL
	**Adenosine (2 nd dose) 3mg/mL	Rapid IV	1.2 mg	0.4 mL BHO	**Hydroxocobalamin 25mg/mL	IV	420 mg Over 15 min	17 mL BHO
	Albuterol 2.5mg/3mL	Neb	5 mg	6 mL	Lidocaine 2% 100mg/5mL	IO	3 mg	0.15 mL
	Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	30 mg	0.6 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL	IV/IO	6 mg	0.3 mL
	**Amiodarone (VT w/ pulse) 50mg/mL	IV	30 mg Over 10 min.	0.6 mL BHO	Midazolam (Seizure 1 st line) 5mg/mL	IM	1.2 mg	0.25 mL
	Atropine (Bradycardia) 1mg/mL	IV/IO	0.14 mg	0.14 mL	Midazolam (Seizure) 5mg/mL	IV/IO/IN	0.6 mg	0.1 mL
	Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.14 mg	1.4 mL	**Midazolam (Cardioversion) 5mg/mL	IN/IV/IM	0.6 mg	0.1 mL BHO
	Atropine (Organophosphate) 1mg/mL	IV	0.14 mg	0.14 mL	**Morphine 4mg/mL	IV carpuject	0.6 mg	0.15 mL BHO <2yrs
	Atropine (Organophosphate) 0.1mg/mL	IV	0.14 mg	1.4 mL	**Morphine 10mg/10mL	IV carpuject	0.6 mg	0.6 mL BHO <2yrs
	Atropine (Organophosphate) 1mg/mL	IM	0.6 mg	0.6 mL	**Morphine 10mg/mL	IM	0.6 mg	0.05 mL BHO <2yrs
	Dextrose 10% 100 mg/mL	IV	30 mL		Naloxone 0.8mg/2mL	IN/IV/IM	0.6 mg	1.5 mL
	Diphenhydramine 50mg/mL	IV/IO/IM	6 mg	0.1 mL	Naloxone 1mg/mL	IN/IV/IM	0.6 mg	0.6 mL
	Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.06 mg	0.06 mL	Naloxone 4mg/0.1mL	IN	Single spray	
	Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.06 mg	0.6 mL	Normal Saline 0.9% NaCl	IV/IO	120 mL	
	Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV	0.06 mg	0.6 mL	Normal Saline 0.9% NaCl	Neb	3 mL	
	**Fentanyl 50mcg/mL	IN/IV/IM	12 mcg	0.25 mL BHO <2yrs	Ondansetron 4mg	ODT	N/A	
					Sodium Bicarbonate 1mEq/mL	IV/IO	6 mEq	6 mL
							1:1 dilution with NS	
	**Base Hospital Order				All milliliters rounded			

Approved:

Carl Schultz

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PEDIATRIC MEDICATION VOLUME DOSE BY WEIGHT

8-9 KG

6 MONTHS

16-32 joules				Normal Vital Signs			
Defibrillation (2-4 J/kg)		8 joules		HR: 100-160		Respirations:20-40 SBP: >70mmHg	
Medication Concentration	Route	Dose	mLs	Medication Concentration	Route	Dose	mLs
**Adenosine (1 st dose) 3mg/mL	Rapid IV	0.3 mg	0.3 mL BHO	Glucagon 1mg/mL	IM	0.5 mg	0.5 mL
**Adenosine (2 nd dose) 3mg/mL	Rapid IV	1.6 mg	0.5 mL BHO	**Hydroxocobalamin 25mg/mL	IV	560 mg Over 15 min	22 mL BHO
Albuterol 2.5mg/3mL	Neb	5 mg	6 mL	Lidocaine 2% 100mg/5mL	IO	4 mg	0.2 mL
Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	40 mg	0.8 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL	IV/IO	8 mg	0.4 mL
**Amiodarone (VT w/ pulse) 50mg/mL	IV	40 mg Over 10 min	0.8 mL BHO	Midazolam (Seizure 1 st line) 5mg/mL	IM	1.6 mg	0.32 mL
Atropine (Bradycardia) 1mg/mL	IV/IO	0.16 mg	0.16 mL	Midazolam (Seizure) 5mg/mL	IV/IO/IN	0.8 mg	0.16 mL
Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.16 mg	1.6 mL	**Midazolam (Cardioversion) 5mg/mL	IN/IV/IM	0.8 mg	0.16 mL BHO
Atropine (Organophosphate) 1mg/mL	IV	0.16 mg	0.16 mL	**Morphine 4mg/mL	IV carpuject	0.8 mg	0.2 mL BHO <2yrs
Atropine (Organophosphate) 0.1mg/mL	IV	0.16 mg	1.6 mL	**Morphine 10mg/10mL	IV carpuject	0.8 mg	0.8 mL BHO <2yrs
Atropine (Organophosphate) 1mg/mL	IM	0.8 mg	0.8 mL	**Morphine 10mg/mL	IM	0.8 mg	0.08 mL BHO <2yrs
Dextrose 10% 100 mg/mL	IV	40 mL		Naloxone 0.8mg/2mL	IN/IV/IM	0.8 mg	2 mL
Diphenhydramine 50mg/mL	IV/IO/IM	8 mg	0.15 mL	Naloxone 1mg/mL	IN/IV/IM	0.8 mg	0.8 mL
Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.08 mg	0.08 mL	Naloxone 4mg/0.1mL	IN		Single spray
				Normal Saline 0.9% NaCl	IV/IO		160 mL
Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.08 mg	0.8 mL	Normal Saline 0.9% NaCl	Neb		3 mL
Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV/IO	0.08 mg	0.8 mL	Ondansetron 4mg	ODT		N/A
**Fentanyl 50mcg/mL	IN/IV/IM	16 mcg	0.3 mL BHO <2yrs	Sodium Bicarbonate 1mEq/mL	IV/IO	8 mEq	8 mL
						1:1 dilution with NS	
**Base Hospital Order				All milliliters rounded			

8-9 KG

6 MONTHS

10-11 KG

1 YEAR

20-40 joules				Normal Vital Signs			
Defibrillation (2-4 J/kg)		10 joules		HR: 90-140		Respirations: 24-40 SBP: >80mmHg	
Medication Concentration	Route	Dose	mLs	Medication Concentration	Route	Dose	mLs
**Adenosine (1 st dose) 3mg/mL	Rapid IV	1 mg	0.3 mL BHO	Glucagon 1mg/mL	IM	0.5 mg	0.5 mL
**Adenosine (2 nd dose) 3mg/mL	Rapid IV	2 mg	0.7 mL BHO	**Hydroxocobalamin 25mg/mL	IV	700 mg Over 15 min	28 mL BHO
Albuterol 2.5mg/3mL	Neb	5 mg	6 mL	Lidocaine 2% 100mg/5mL	IO	5 mg	0.25 mL
Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	50 mg	1 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL	IV/IO	10 mg	0.5 mL
**Amiodarone (VT w/ pulse) 50mg/mL	IV	50 mg Over 10 min	1 mL BHO	Midazolam (Seizure 1 st line) 5mg/mL	IM	2 mg	0.4 mL
Atropine (Bradycardia) 1mg/mL	IV/IO	0.2 mg	0.2 mL	Midazolam (Seizure) 5mg/mL	IV/IO/IN	1 mg	0.2 mL
Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.2 mg	2 mL	**Midazolam (Cardioversion) 5mg/mL	IN/IV/IM	1 mg	0.2 mL BHO
Atropine (Organophosphate) 1mg/mL	IV	0.2 mg	0.2 mL	**Morphine 4mg/mL	IV carpuject	1 mg	0.25 mL BHO <2yrs
Atropine (Organophosphate) 0.1mg/mL	IV	0.2 mg	2 mL	**Morphine 10mg/10mL	IV carpuject	1 mg	1 mL BHO <2yrs
Atropine (Organophosphate) 1mg/mL	IM	1 mg	1 mL	**Morphine 10mg/mL	IM	1 mg	0.1 mL BHO <2yrs
Dextrose 10% 100 mg/mL	IV	50 mL		Naloxone 0.8mg/2mL	IN/IV/IM	0.8 mg	2 mL
Diphenhydramine 50mg/mL	IV/IO/IM	10 mg	0.2 mL	Naloxone 1mg/mL	IN/IV/IM	1 mg	1 mL
Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.1 mg	0.1 mL	Naloxone 4mg/0.1mL	IN		Single spray
				Normal Saline 0.9% NaCl	IV/IO		200 mL
Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.1 mg	1 mL	Normal Saline 0.9% NaCl	Neb		3 mL
Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV/IO	0.1 mg	1 mL	Ondansetron 4mg	ODT		N/A
**Fentanyl 50mcg/mL	IN/IV/IM	20 mcg	0.4 mL BHO <2yrs	Sodium Bicarbonate 1mEq/mL	IV/IO	10 mEq	10 mL
**Base Hospital Order				All milliliters rounded			

10-11 KG

1 YEAR

Approved:

Carl Schultz, MO.

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ORANGE COUNTY EMERGENCY MEDICAL SERVICES PREHOSPITAL ALS STANDING ORDERS

PEDIATRIC MEDICATION VOLUME DOSE BY WEIGHT

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12-14 KG 2 YEARS	Defibrillation (2-4 J/kg) Cardioversion** (1 J/kg)				Normal Vital Signs			
	24-48 joules		15 joules		HR: 90-140		Respirations: 20-30 SBP: >80mmHg	
	Medication Concentration	Route	Dose	mLs	Medication Concentration	Route	Dose	mLs
	**Adenosine (1 st dose) 3mg/mL	Rapid IV	1.2 mg	0.4 mL BHO	Glucagon 1mg/mL	IM	0.5 mg	0.5 mL
	**Adenosine (2 nd dose) 3mg/mL	Rapid IV	2.4 mg	0.8 mL BHO	**Hydroxocobalamin 25mg/mL	IV	840 mg Over 15 min	34 mL BHO
	Albuterol 2.5mg/3mL	Neb	5 mg	6 mL	Lidocaine 2% 100mg/5mL	IO	6 mg	0.3 mL
	Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	70 mg	1.4 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL	IV/IO	12 mg	0.6 mL
	**Amiodarone (VT w/ pulse) 50mg/mL	IV	70 mg Over 10 min.	1.4 mL BHO	Midazolam (Seizure 1 st line) 5mg/mL	IM	2.4 mg	0.5 mL
	Atropine (Bradycardia) 1mg/mL	IV/IO	0.24 mg	0.24 mL	Midazolam (Seizure) 5mg/mL	IV/IO/IN	1.2 mg	0.25 mL
	Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.24 mg	2.4 mL	**Midazolam (Cardioversion) 5mg/mL	IN/IV/IM	1.2 mg	0.25 mL BHO
	Atropine (Organophosphate) 1mg/mL	IV	0.24 mg	0.24 mL	**Morphine 4mg/mL	IV carpuject	1.2 mg	0.3 mL BHO <2 yrs
	Atropine (Organophosphate) 0.1mg/mL	IV	0.24 mg	2.4 mL	**Morphine 10mg/10mL	IV carpuject	1.2 mg	1.2 mL BHO <2 yrs
	Atropine (Organophosphate) 1mg/mL	IM	1.2 mg	1.2 mL	**Morphine 10mg/mL	IM	1.2 mg	0.12 mL BHO <2 yrs
	Dextrose 10% 100 mg/mL	IV	60 mL		Naloxone 0.8mg/2mL	IN/IV/IM	0.8 mg	2 mL
	Diphenhydramine 50mg/mL	IV/IO/IM	12 mg	0.25 mL	Naloxone 1mg/mL	IN/IV/IM	1 mg	1 mL
	Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.12 mg	0.12 mL	Naloxone 4mg/0.1mL	IN	Single spray	
	Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.12 mg	1.2 mL	Normal Saline 0.9% NaCl	IV/IO	240 mL	
	Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV/IO	0.12 mg	1.2 mL	Normal Saline 0.9% NaCl	Neb	3 mL	
	**Fentanyl 50mcg/mL	IN/IV/IM	24 mcg	0.5 mL BHO <2 yrs	Ondansetron 4mg	ODT	N/A	
					Sodium Bicarbonate 1mEq/mL	IV/IO	12 mEq	12 mL
	**Base Hospital Order				All milliliters rounded			

15-18 KG 3-4 YEARS	Defibrillation (2-4 J/kg) Cardioversion** (1 J/kg)				Normal Vital Signs			
	30-60 joules		15 joules		HR: 80-130		Respirations: 20-30 SBP: >85mmHg	
	Medication Concentration	Route	Dose	mLs	Medication Concentration	Route	Dose	mLs
	**Adenosine (1 st dose) 3mg/mL	Rapid IV	1.5 mg	0.5 mL BHO	Glucagon 1mg/mL	IM	0.5 mg	0.5 mL
	**Adenosine (2 nd dose) 3mg/mL	Rapid IV	3 mg	1 mL BHO	**Hydroxocobalamin 25mg/mL	IV	1050 mg Over 15 min	42 mL BHO
	Albuterol 2.5mg/3mL	Neb	5 mg	6 mL	Lidocaine 2% 100mg/5mL	IO	7.5 mg	0.4 mL
	Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	75 mg	1.5 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL	IV/IO	15 mg	0.8 mL
	**Amiodarone (VT w/ pulse) 50mg/mL	IV	75 mg Over 10 min.	1.5 mL BHO	Midazolam (Seizure 1 st line) 5mg/mL	IM	3 mg	0.6 mL
	Atropine (Bradycardia) 1mg/mL	IV/IO	0.3 mg	0.3 mL	Midazolam (Seizure) 5mg/mL	IV/IO/IN	1.5 mg	0.3 mL
	Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.3 mg	3 mL	**Midazolam (Cardioversion) 5mg/mL	IN/IV/IM	1.5 mg	0.3 mL BHO
	Atropine (Organophosphate) 1mg/mL	IV	0.3 mg	0.3 mL	Morphine 4mg/mL	IV carpuject	1.5 mg	0.4 mL
	Atropine (Organophosphate) 0.1mg/mL	IV	0.3 mg	3 mL	Morphine 10mg/10mL	IV carpuject	1.5 mg	1.5 mL
	Atropine (Organophosphate) 1mg/mL	IM	1.5 mg	1.5 mL	Morphine 10mg/mL	IM	1.5 mg	0.15mL
	Dextrose 10% 0.1mg/mL	IV	75 mL		Naloxone 0.8mg/2mL	IN/IV/IM	0.8 mg	2 mL
	Diphenhydramine 50mg/mL	IV/IO/IM	15 mg	0.3 mL	Naloxone 1mg/mL	IN/IV/IM	1 mg	1 mL
	Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.15 mg	0.15 mL	Naloxone 4mg/0.1mL	IN	Single spray	
	Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.15 mg	1.5 mL	Normal Saline 0.9% NaCl	IV/IO	250 mL	
	Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV/IO	0.15 mg	1.5 mL	Normal Saline 0.9% NaCl	Neb	3 mL	
	Fentanyl 50mcg/mL	IN/IV/IM	30 mcg	0.6 mL	Ondansetron 4mg	ODT	4 mg Age 24 years	
					Sodium Bicarbonate 1mEq/mL	IV/IO	15 mEq	15 mL
	**Base Hospital Order				All milliliters rounded			

Approved:

Carl Schultz, MD

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ORANGE COUNTY EMERGENCY MEDICAL SERVICES
PREHOSPITAL ALS STANDING ORDERS

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PEDIATRIC MEDICATION VOLUME DOSE BY WEIGHT

19-23 KG 5-6 YEARS	Defibrillation (2-4 J/kg) Cardioversion** (1 J/kg)				Normal Vital Signs HR: 70-120 Respirations: 15-30 SBP: >85mmHg			
	40-80 joules 20 joules							
	Medication Concentration	Route	Dose	mLs	Medication Concentration	Route	Dose	mLs
	**Adenosine (1 st dose) 3mg/mL	Rapid IV	2 mg	0.7 mL BHO	Glucagon 1mg/mL	IM	0.5 mg	0.5 mL
	**Adenosine (2 nd dose) 3mg/mL	Rapid IV	4 mg	1.3 mL BHO	**Hydroxocobalamin 25mg/mL	IV	1400 mg Over 15 min	56 mL BHO
	Albuterol 2.5mg/3mL	Neb	5 mg	6 mL	Lidocaine 2% 100mg/5mL	IO	10 mg	0.5 mL
	Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	100 mg	2 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL	IV/IO	20 mg	1 mL
	**Amiodarone (VT w/ pulse) 50mg/mL	IV	100 mg Over 10 min.	2 mL BHO	Midazolam (Seizure 1 st line) 5mg/mL	IM	4 mg	0.8 mL
	Atropine (Bradycardia) 1mg/mL	IV/IO	0.4 mg	0.4 mL	Midazolam (Seizure) 5mg/mL	IV/IO/IN	2 mg	0.4 mL
	Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.4 mg	4 mL	**Midazolam (Cardioversion) 5mg/mL	IN/IV/IM	2 mg	0.4 mL BHO
	Atropine (Organophosphate) 1mg/mL	IV	0.4 mg	0.4 mL	Morphine 4mg/mL	IV carpuject	2 mg	0.5 mL
	Atropine (Organophosphate) 0.1mg/mL	IV	0.4 mg	4 mL	Morphine 10mg/10mL	IV carpuject	2 mg	2 mL
	Atropine (Organophosphate) 1mg/mL	IM	2 mg	2 mL	Morphine 10mg/mL	IM	2 mg	0.2 mL
	Dextrose 10% 100 mg/mL	IV	100 mL		Naloxone 0.8mg/2mL	IN/IV/IM	0.8 mg	2 mL
	Diphenhydramine 50mg/mL	IV/IO/IM	20 mg	0.4 mL	Naloxone 1mg/mL	IN/IV/IM	1 mg	1 mL
	Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.2 mg	0.2 mL	Naloxone 4mg/0.1mL	IN	Single spray	
	Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.2 mg	2 mL	Normal Saline 0.9% NaCl	IV/IO	250 mL	
	Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV/IO	0.2 mg	2 mL	Normal Saline 0.9% NaCl	Neb	3 mL	
	Fentanyl 50mcg/mL	IN/IV/IM	40 mcg	0.8 mL	Ondansetron 4mg	ODT	4 mg	
				Sodium Bicarbonate 1mEq/mL	IV/IO	20 mEq	20 mL	
**Base Hospital Order				All milliliters rounded				

24-29 KG 7-8 YEARS	Defibrillation (2-4 J/kg) Cardioversion** (1 J/kg)				Normal Vital Signs HR: 70-110 Respirations: 15-30 SBP: >90mmHg			
	50-100 joules 30 joules							
	Medication Concentration	Route	Dose	mLs	Medication Concentration	Route	Dose	mLs
	**Adenosine (1 st dose) 3mg/mL	Rapid IV	2.5 mg	0.85 mL BHO	Glucagon 1mg/mL	IM	0.5 mg	0.5 mL
	**Adenosine (2 nd dose) 3mg/mL	Rapid IV	5 mg	1.7 mL BHO	**Hydroxocobalamin 25mg/mL	IV	1820 mg Over 15 min	73 mL BHO
	Albuterol 2.5mg/3mL	Neb	5 mg	6 mL	Lidocaine 2% 100mg/5mL	IO	13 mg	0.65 mL
	Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	125 mg	2.5 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL	IV/IO	25 mg	1.3 mL
	**Amiodarone (VT w/ pulse) 50mg/mL	IV	125 mg Over 10 min.	2.5 mL BHO	Midazolam (Seizure 1 st line) 5mg/mL	IM	5 mg	1 mL
	Atropine (Bradycardia) 1mg/mL	IV/IO	0.5 mg	0.5 mL	Midazolam (Seizure) 5mg/mL	IV/IO/IN	2.5 mg	0.5 mL
	Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.5 mg	5 mL	**Midazolam (Cardioversion) 5mg/mL	IN/IV/IM	2.5 mg	0.5 mL BHO
	Atropine (Organophosphate) 1mg/mL	IV	0.5 mg	0.5 mL	Morphine 4mg/mL	IV carpuject	2.5 mg	0.65 mL
	Atropine (Organophosphate) 0.1mg/mL	IV	0.5 mg	5 mL	Morphine 10mg/10mL	IV carpuject	2.5 mg	2.5 mL
	Atropine (Organophosphate) 1mg/mL	IM	2 mg	2 mL	Morphine 10mg/mL	IM	2.5 mg	0.25 mL
	Dextrose 10% 100 mg/mL	IV	130 mL		Naloxone 0.8mg/2mL	IN/IV/IM	0.8 mg	2 mL
	Diphenhydramine 50mg/mL	IV/IO/IM	25mg	0.5 mL	Naloxone 1mg/mL	IN/IV/IM	1 mg	1 mL
	Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.25 mg	0.25 mL	Naloxone 4mg/0.1mL	IN	Single spray	
	Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.25 mg	2.5 mL	Normal Saline 0.9% NaCl	IV/IO	250 mL	
	Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV/IO	0.25 mg	2.5 mL	Normal Saline 0.9% NaCl	Neb	3 mL	
	Fentanyl 50mcg/mL	IN/IV/IM	50 mcg	1 mL	Ondansetron 4mg	ODT	4 mg	
				Sodium Bicarbonate 1mEq/mL	IV/IO	25 mEq	25 mL	
**Base Hospital Order				All milliliters rounded				

Approved:

Carl Schultz, MD.

Review Dates: 7/21; 9/22

Initial Release Date: 10/12/2022

Final Implementation Date: 04/01/2023

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ORANGE COUNTY EMERGENCY MEDICAL SERVICES
PREHOSPITAL ALS STANDING ORDERS

PEDIATRIC MEDICATION VOLUME DOSE BY WEIGHT

#: 1-20
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Org Date: 7/20
Revised: 9/28/2022

30-36 KG 9-12 YEARS	Defibrillation (2-4 J/kg) Cardioversion** (1 J/kg)				Normal Vital Signs HR: 60-100 Respirations: 15-20 SBP: >90mmHg			
	70-140 joules 30 joules							
	Medication Concentration	Route	Dose	mLs	Medication Concentration	Route	Dose	mLs
30-36 KG 9-12 YEARS	**Adenosine (1 st dose) 3mg/mL	Rapid IV	3.5 mg	1.2 mL BHO	Glucagon 1mg/mL	IM	0.5 mg	0.5 mL
	**Adenosine (2 nd dose) 3mg/mL	Rapid IV	7 mg	2.4 mL BHO	**Hydroxocobalamin 25mg/mL	IV	2380 mg Over 15 min	95 mL BHO
	Albuterol 2.5mg/3mL	Neb	5 mg	6 mL	Lidocaine 2% 100mg/5mL	IO	17 mg	0.85 mL
	Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	175 mg	3.5 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL	IV/IO	35 mg	1.8 mL
	**Amiodarone (VT w/ pulse) 50mg/mL	IV	150 mg Over 10 min.	3 mL BHO	Midazolam (Seizure 1 st line) 5mg/mL	IM	7 mg	1.4 mL
	Atropine (Bradycardia) 1mg/mL	IV/IO	0.7 mg	0.7 mL	Midazolam (Seizure) 5mg/mL	IV/IO/IN	3.5 mg	0.7 mL
	Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.7 mg	7 mL	**Midazolam (Cardioversion) 5mg/mL	IN/IV/IM	3.5 mg	0.7 mL BHO
	Atropine (Organophosphate) 1mg/mL	IV	0.7 mg	0.7 mL	Morphine 4mg/mL	IV carpuject	3.5 mg	0.85 mL
	Atropine (Organophosphate) 0.1mg/mL	IV	0.7 mg	7 mL	Morphine 10mg/10mL	IV carpuject	3.5 mg	3.5 mL
	Atropine (Organophosphate) 1mg/mL	IM	2 mg	2 mL	Morphine 10mg/mL	IM	3.5 mg	0.35 mL
	Dextrose 10% 100 mg/mL	IV	175 mL		Naloxone 0.8mg/2mL	IN/IV/IM	0.8 mg	2 mL
	Diphenhydramine 50mg/mL	IV/IO/IM	35 mg	0.7 mL	Naloxone 1mg/mL	IN/IV/IM	1 mg	1 mL
	Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.35 mg	0.35 mL	Naloxone 4mg/0.1mL	IN	Single spray	
	Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.3 mg	3 mL	Normal Saline 0.9% NaCl	IV/IO	250 mL	
	Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV/IO	0.35 mg	3.5 mL	Normal Saline 0.9% NaCl	Neb	3 mL	
	Fentanyl 50mcg/mL	IN/IV/IM	50 mcg	1 mL	Ondansetron 4mg	ODT	4 mg	
					Sodium Bicarbonate 1mEq/mL	IV/IO	35 mEq	35 mL
	**Base Hospital Order				All milliliters rounded			

37-49 KG (too tall for Broselow) 13-14 YEARS	Defibrillation (2-4 J/kg) Cardioversion** (1 J/kg)				Normal Vital Signs HR: 60-100 Respirations: 15-20 SBP: >90mmHg			
	80-160 joules 40 joules							
	Medication Concentration	Route	Dose	mLs	Medication Concentration	Route	Dose	mLs
37-49 KG (too tall for Broselow) 13-14 YEARS	**Adenosine (1 st dose) 3mg/mL	Rapid IV	4.5 mg	1.5 mL BHO	Glucagon 1mg/mL	IM	0.5 mg	0.5 mL
	**Adenosine (2 nd dose) 3mg/mL	Rapid IV	9 mg	3 mL BHO	**Hydroxocobalamin 25mg/mL	IV	3,150 mg Over 15 min	126 mL BHO
	Albuterol 2.5mg/3mL	Neb	5 mg	6 mL	Lidocaine 2% 100mg/5mL	IO	20 mg	1 mL
	Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	225 mg	4.5 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL	IV/IO	45 mg	2.3 mL
	**Amiodarone (VT w/ pulse) 50mg/mL	IV	150 mg Over 10 min.	3 mL BHO	Midazolam (Seizure 1 st line) 5mg/mL	IM	9 mg	1.8 mL
	Atropine (Bradycardia) 1mg/mL	IV/IO	0.9 mg	0.9 mL	Midazolam (Seizure) 5mg/mL	IV/IO/IN	4.5 mg	0.9 mL
	Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.9 mg	9 mL	**Midazolam (Cardioversion) 5mg/mL	IN/IV/IM	4.5 mg	0.9 mL BHO
	Atropine (Organophosphate) 1mg/mL	IV	0.9 mg	0.9 mL	Morphine 4mg/mL	IV carpuject	4 mg	1 mL
	Atropine (Organophosphate) 0.1mg/mL	IV	0.9 mg	9 mL	Morphine 10mg/10mL	IV carpuject	4.5 mg	4.5 mL
	Atropine (Organophosphate) 1mg/mL	IM	2 mg	2 mL	Morphine 10mg/mL	IM	4.5 mg	0.45 mL
	Dextrose 10% 0.1mg/mL	IV	225 mL		Naloxone 0.8mg/2mL	IN/IV/IM	0.8 mg	2 mL
	Diphenhydramine 50mg/mL	IV/IO/IM	45 mg	0.9 mL	Naloxone 1mg/mL	IN/IV/IM	1 mg	1 mL
	Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.45 mg	0.45 mL	Naloxone 4mg/0.1mL	IN	Single spray	
	Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.3 mg	3 mL	Normal Saline 0.9% NaCl	IV/IO	250 mL	
	Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV/IO	0.45 mg	4.5 mL	Normal Saline 0.9% NaCl	Neb	3 mL	
	Fentanyl 50mcg/mL	IN/IV/IM	50 mcg	1 mL	Ondansetron 4mg	ODT	4 mg	
					Sodium Bicarbonate 1mEq/mL	IV/IO	45 mEq	45 mL
	**Base Hospital Order				All milliliters rounded			

Approved:

Carl Schultz, MD.

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COUNTY PREHOSPITAL ADVISORY COMMITTEE



2023 Meeting Dates and Times

Jan. 11*

Mar. 8

May 10

July 12

Sept. 13

Nov. 8

All meetings are held on the second Wednesday of odd months

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