GUIDELINES FOR DIVERSION STATUS AND APOT STANDARD

I. AUTHORITY:

California Health and Safety Code, Division 2.5, 1797.120; 1797.220; 1798 (a) (b)

II. APPLICATION:

This policy defines the Emergency Receiving Center (ERC) and Specialty Center procedure for requesting diversion when it is no longer safe for that facility to accept ALS and BLS ambulance-transported patients. It also establishes the county standard for Ambulance Patient Offload Times (APOT) as required by the California EMS Authority mandate.

ERCs and specialty centers shall minimize the duration and occurrence of diversion. No patient can be diverted from any center prior to the posting of diversion status on the ReddiNet® System except for internal disruption.

III. OBJECTIVES:

A. To assure the transport of a patient with an emergency medical condition to an appropriate ERC/Specialty Center that is safely staffed, equipped, and prepared to provide emergency medical care.

B. To provide standard definitions for ERC/Specialty Center closure and diversion requests.

C. To provide a mechanism for ERCs/Specialty Centers to:

1. Temporarily divert ambulance-transported patients when unable to safely provide emergency medical care;
2. Advise EMS system participants of diversion status; and
3. Identify the conditions which made the diversion request necessary.

D. To assure service provider units (fire, ambulance) are not unreasonably removed from their area of primary response when transporting patients to an ERC/Specialty Center.

E. Establish a standard for Ambulance Patient Offload Times (APOT).

IV. CLOSURE CATEGORIES:

A. ERC or specialty center may request diversion of ambulance-transported patients for the following reasons and using the following terminology:

1. Closed: ED Saturation - ED resources are fully committed and it is unsafe to accept additional in-coming patients. CCERCs can use this designation as well.

2. Closed: Trauma (TRAUMA CENTERS ONLY) - Trauma center is unable to provide trauma care for incoming trauma victims due to lack of an available trauma surgeon, trauma team, or surgical suite because of commitment to another trauma patient.

3. Closed: Internal Disruption – A physical problem exists at the ERC which would make it unsafe for the facility to accept any additional patients. (*e.g.*, fire, bomb threat, power outage, flooding, telephone outage)

4. Closed: CT Scanner – CT scanner is unavailable or out-of-service.

5. Closed: Cardiac – Cardiovascular Receiving Center (CVRC) unable to provide care for

STEMI patient due to cath lab occupied or disabled, cardiologist unavailable, or encumbered cath lab team.

6. Closed: Neuro – Stroke-Neurology Receiving Center (SNRC) unable to provide care to stroke patient due to thrombectomy suite occupied or disabled, neurointerventionalist/neurosurgeon/neurologist unavailable, CT scanner not functional, or encumbered thrombectomy team.

V. MECHANISM:

A. Request for ERC diversion status:

1. Notification of diversion will be made by the ReddiNet® system.

2. The following questions (on ReddiNet®) will be answered accurately:

   a. Empty Emergency Department beds
   b. Admitted patients in Emergency Department beds
   c. Other patients in ED beds
   d. Patients waiting in ED lobby/waiting room

3. The ReddiNet® comment section shall be utilized to include the estimated time of re-opening the Emergency Department.

4. The last names of the Emergency Physician, Emergency RN, ReddiNet® Operator, and any other authorized designee will be filled in as the diversion authorizers.

5. ERCs shall make every effort to reopen as soon as possible. Upon immediate improvement in capacity to provide emergency care, the Emergency Department will reopen and use ReddiNet® to alert the EMS system.

6. After two (2) hours of diversion, the ReddiNet® system will generate an audible alarm, alert light, and a popup window with questions that the ReddiNet® Operator must answer for the ERC to continue on diversion. If additional diversion is required, the ERC will update facility diversion status and answer diversion questions (# 2 above) and provide the name of the Hospital Administrator notified of the situation in the comment section.

B. Specialty Centers – Trauma, Cardiovascular, Comprehensive Children's, and Stroke-Neurology Receiving Centers:

1. Destination for specialty center patients is determined by Base Hospital (BH) contact. The contacted BH has authority for final destination determination.

2. Trauma criteria patient destination should be to the nearest open Trauma Center. This includes a Trauma Center that is open for trauma but closed due to ED Saturation.

3. Acute myocardial infarction ("Acute MI") criteria patients should be routed to the nearest open ERC that is an OCEMS designated CVRC with an available cardiac catheter laboratory and team.

4. Patients meeting Stroke-Neurology triage criteria should be routed to the nearest open ERC that is an OCEMS designated SNRC. Transfers of acute Stroke-Neurology patients to a SNRC from one of that center's spoke hospitals should be accepted for rapid or direct admission by the SNRC if just closed due to ED Saturation but otherwise has capability.

5. Requests for transport of pediatric patients to a Comprehensive Children's Emergency Receiving Center (CCERC) should be routed to the nearest open OCEMS designated CCERC even if closed to trauma.

C. Special Circumstances

1. If the three receiving centers most accessible to an incident location are reporting "Closed: ED Sat", the diversion request of each ERC will not be honored and the patient will be transported to the most accessible appropriate receiving center, regardless of its open/closed status.

2. If the two closest Trauma Receiving Centers are reporting "Closed: Trauma" and an ALS unit estimates an extended transport time to the next open Trauma Receiving Center, the BH will determine and authorize transport to the most appropriate receiving Trauma Center.

3. If both CCERCs are on diversion, this designation will be disregarded and both shall be considered open for ambulance patients.

4. If the two SNRCs or CVRCs most accessible to a patient's location are both reporting "Closed: Neuro or Closed: Cardiac", the diversion status will not be honored and the patient will be transported to the nearest appropriate receiving center.

5. If an ERC is listed as "Closed: ED Sat", this will automatically place the facility's SNRC and CVRC on diversion as well. Exception: transfer from a spoke hospital to the SNRC for direct admission to the stroke service.

VI. PROCEDURE:

A. Receiving Center Responsibilities

1. Each OCEMS receiving hospital must have a written ERC-wide response plan which addresses the steps to be followed and the appropriate ERC administrative staff to be notified when high patient volume within the ED or other situations as identified in Section IV necessitates temporary diversion of additional ambulance-transported patients.

2. Orange County ERCs must use the ReddiNet® system to notify all Orange County ERCs and Orange County Communications (OCC) of the reason(s) for closure, using only the terminology specified in Section IV of this document. Should the ReddiNet® system not be functioning, telephone notification is acceptable.

B. OCEMS Responsibilities

1. OCEMS shall monitor the frequency and duration of ERC requests for diversion of ambulance-transported patients and prepare a summary of ERC closures and distribute to all system participants on a periodic basis.

2. OCEMS may perform periodic, unannounced site visits of ERCs requesting bypass of ambulance-transported patients to ensure compliance with all guidelines. Frequency of site visits will be at the discretion of OCEMS.

C. ReddiNet® /H.E.A.R. Central Point Responsibilities

1. Upon request, OCC shall advise fire dispatch, ambulance dispatch, ALS, and BLS providers of an ERC's current status.

D. Base Hospital Responsibilities

1. Final authority for paramedic-escorted patient destination rests with the BH physician. The BH physician will honor an ED or specialty center diversion request provided that the ALS unit estimates that it can reach an "open" facility within a safe period of time.

2. Utilizing the Orange County Medical Emergency Data System (OC-MEDS), BHs will identify and evaluate the electronic patient care records of prehospital patients that were diverted from the nearest ERC and track the reason for diversion.

VII. APOT STANDARD

A. The APOT shall be defined as the time interval between the arrival of an ambulance patient at an emergency department (the ambulance comes to rest in the ambulance bay) and the time that the patient is transferred to an emergency department gurney, bed, chair, or other acceptable location and the emergency department assumes responsibility for care of the patient.

B. The standard for APOT is derived from ambulance time data collected over a 4 year span for patient offload times at Orange County ERCs.

1. The APOT standard will represent the median time for the 90th percentile of all offload times across the county for all ERCs.

2. After also considering the value for the upper limit of the interquartile range, the APOT standard for OCEMS is set at 30 minutes.

3. This standard will apply to all ERCs in Orange County.

4. Data will also be reported to EMSA.

C. OCEMS will review this standard on a yearly basis and may adjust it, if necessary, based on changes in the median for the 90th percentile of APOTs at Orange County ERCs.

Approved:

Carl H. Schultz, MD
OCEMS Medical Director

Tammi McConnell, RN, MSN
OCEMS Administrator

Original Date:	06/1988
Review Date(s):	4/2014; 9/2018; 11/2020
Revised Date(s):	8/31/2012; 2/10/2021
Effective Date:	4/1/2021

9-1-1 ADVANCED LIFE SUPPORT BASE CONTACT, STANDING ORDER, AND TRANSPORT CRITERIA

I. AUTHORITY:

California Health and Safety Code, Division 2,5, Sections 1797.220, 1797.222, 1797.250, 1797.257, 1798.0, and 1798.2.

II. APPLICATION:

This policy defines when 9-1-1 dispatched advanced life support units (ALS), including ALS air rescue units, must make base contact for EMS system coordination and medical direction of field patient care. It extends the definition to include Comprehensive Children's Emergency Receiving Center (pediatric base) contact when responding to a patient under 15-years of age. This policy also provides authorization and criteria for use of Standing Orders (SO) and Procedures Prior to Base Contact by 9-1-1 ALS personnel and requirements for transportation of patients from the field to Emergency Receiving Centers (ERC).

III. CRITERIA:

BASE HOSPITAL CONTACT:

Base Hospital contact is encouraged and appropriate at any time an OCEMS 9-1-1 dispatched paramedic determines there is a benefit or need to do so.

Base Hospital (BH) contact is required for the following types of cases:

- Adult patients with unstable vital signs for whom there is not an applicable Standing Order. Unstable vital signs are defined as:

	Adult/Adolescent
Pulse (bpm)	<50 or >130
Respirations (resp/min)	<12 or > 26
Systolic blood pressure (mm Hg)	<90

- All persons identified in Standing Orders (SO) as requiring base contact. Base contact must be enacted prior to the initiation of transport when required by SO.
- Patients for whom a 12-lead ECG is performed who request to sign out AMA for transport.
- Mass Casualty Incidents (MCI) for receiving ERC/TC destination, unless the Orange County Communications Center (OCC) is determined by field protocol as communication point for destination assignments.
- Cardiovascular Receiving Center (CVRC) patients to determine destination for an open cardiac catheterization laboratory. Indications for CVRC transport include:
  - Return Of Spontaneous Circulation (ROSC)
  - Automatic Implantable Cardioverter Defibrillator "firing" or defibrillating two or more times in less than fifteen minutes.
  - 12 lead EKG reading of acute MI
  - Patient with symptomatic bradycardia
  - Patient with a Left Ventricular Assist Device (LVAD)
- Patients who meet Trauma or Replant Criteria (see SO-T-15).
- Patients who meet Stroke-Neurology Center criteria.

- Burn Center (see SO-E-05) patients to determine which center is available for receiving acute cases.
- Triage decisions in which Base Hospital contact may assist field personnel, such as ALS level refusal of care when there is a question of patient mental capacity.
- Field transport by helicopter to an ERC

Comprehensive Children's Emergency Receiving Center (CCERC) contact is encouraged and appropriate at any time a paramedic determines there is a benefit or need to do so.

Base Hospital (BH) contact (CCERC pediatric base preferred) is required for the following cases:

- Pediatric patients with unstable vital signs for whom there is not an applicable Standing Order. Unstable vital signs are defined as:

	Newborn through 14 years
Pulse (bpm)	<60 or >200
Respirations (resp/min)	<12 or > 50
Systolic blood pressure (mm Hg)	<80

- All persons identified in Standing Orders (SO) as requiring base contact. Base contact must be enacted prior to the initiation of transport when required by SO.
- Respiratory distress or labored breathing manifested by:
  - Intercostal retractions,
  - Nasal flaring with inspiration,
  - Respirations less than approximately 12/min or more than approximately 50/min,
  - Cyanosis (particularly of lips and central face area),
  - Complaint of difficulty breathing by child who can communicate
  - Paramedic judgment
- Circulatory compromise manifested by:
  - Poor skin color (pallor, cyanosis)
  - Decreased capillary refill of hypothenar area (3 seconds or greater)
  - Altered mental status or confusion
  - Mottling of skin (darkened or lighter patches)
  - Pale lips or fingernail beds
  - Weak / thready pulse or heart rate less than 60/min or over 200/min
  - Paramedic judgement
- Children with acute symptoms of a BRUE (ALTE) below, either observed by EMS personnel or reported by parent or caretaker, even when signs or symptoms are apparently resolved:
  - Apnea episode
  - Color change (cyanosis, pallor, erythema) episode

- Marked change in muscle tone (limpness, flaccidity) episode
- Choking or gagging spontaneous, unrelated to food or fluid intake

- Children with BRUE (ALTE) symptoms when caretaker requests to sign out AMA for ALS or BLS transport.
- Children who meet Trauma or Replant Criteria (see SO-T-15).
- Child victims of suspected physical or sexual assault.
- Pediatric cardiac arrest and ROSC
- Pediatric drowning (fatal/non-fatal)
- Burn Center (see SO-P-95) pediatric patients to determine which center is available for receiving acute cases and to assist with management.

IV. ALS STANDING ORDERS (SO): (Applies to ALS provider agencies approved to use Standing Orders)

- SO are field medical orders for specific medical conditions. SO may be used by on-duty OCEMS Accredited Paramedics while working for an SO approved ALS provider agency.
- Base Hospital contact should be made when indicated in a specific SO. At times, patients may require care not specified in SO or care beyond that given using SO; when needed, BH contact should be established for further on-line medical direction and orders.
- When BH contact is made, further medical orders come from the BH. If base contact is discontinued after making contact, the appropriate SO may be initiated or resumed as necessary with no further BH contact.
- If a SO does not require BH contact, the paramedic may transport a patient to the appropriate ERC without contacting a BH.

V. TRANSPORT:

- Persons who have stable vital signs or who do not meet Trauma, Burn, Cardiovascular or Stroke-Neurology Receiving Center criteria may request and be transported to their preferred Emergency Receiving Center.
  - Persons who meet Trauma, Burn, Cardiovascular, or Stroke-Neurology Center triage criteria should be ALS transported to an appropriate specialty center as determined by Base Hospital contact.
  - Persons meeting Trauma, Cardiovascular, or Stroke-Neurology Receiving Center triage criteria with stable vital signs and who are mentally competent may sign AMA to be transported to their preferred hospital (if not diverting patients) which may or may not be a TC, CVRC, or SNRC.
- An OCEMS Base Hospital has final authority to determine transport destination to an OCEMS ERC (including determination to route a patient to an ERC or specialty center that has declared it is on diversion).

- Transport any child meeting the following criteria directly to a CCERC when:
  - A CCERC is the most appropriate, nearest emergency receiving center (ERC)
  - Child's parent or caretaker requests transport to a CCERC and transport can reasonably be accomplished
  - Child appears to be having an acute stroke or neurologic emergency
  - Child is an interfacility transport from a health care facility or provider to a CCERC

VI. RADIO CONTACT PROCESS:

- EMS field units, air rescue units should initiate Pediatric Base Hospital (CCERC) contact through Orange County Communications (OCC) using standard radio contact and Base assignment procedures.

- OCEMS Emergency Receiving Centers (ERCs) and other community hospitals should telephone directly to a CCERC as a means of communication.

VII. HOSPITAL DIVERSION:

- When a receiving center is known to be on ReddiNet emergency department diversion status, neither BLS nor ALS cases are to be transported to that facility until the facility is off diversion.

- Hospitals that have declared they are on emergency department diversion status are considered unsafe for arrival of further patients, representing a threat to community health and safety. Unless the three (3) closest hospitals to the incident scene are on diversion, all field transports including patients with cardiac arrests, acute strokes, and acute cardiac conditions meeting CVRC criteria should be transported to the nearest appropriate hospital that is not on diversion status. If the three (3) hospitals closest to the field scene are on emergency department diversion status, Base Hospital contact should be initiated for ALS level patients and the patient transported to the nearest Emergency Receiving Center (ERC) regardless of diversion status or to an alternate receiving center determined by the Base Hospital.

- Patients meeting Trauma Triage Criteria (OCEMS Policy # 310.30) should be transported to the nearest Trauma Center that is not on trauma diversion status. If all adult trauma centers are on diversion status, trauma victims should be directed by the Base Hospital to be transported to the nearest adult trauma center regardless of diversion status.

VIII. SPECIAL CIRCUMSTANCES:

- Victims of sexual assault should be transported to the most accessible open ERC based on OCEMS triage criteria. If a sexual assault victim has injuries that meet Trauma Triage Criteria, BH Contact should be made with transport to an appropriate trauma center.

- Persons requesting or in need of medical care who are being legally detained will be managed by appropriate OCEMS policies and guidelines. "Medical Clearance" or medical screening requires a complete emergency department or jail intake center medical evaluation and is not a field procedure. Detained persons who are mentally competent may refuse medical care and sign AMA per SO-AMA. Patients in police custody who require emergency medical evaluation should

be transported to the Emergency Receiving Center requested by law enforcement personnel unless the patient meets specialty care (trauma, cardiovascular, or stroke-neurology) criteria.

- First responding BLS units may transport unstable medical cases to the nearest ERC if the estimated time for ALS arrival exceeds BLS transport time to the ERC. First responders may expedite immediate transport of an infant/small child near-drowning victim to the most accessible ERC.

IX. ALS ESCORT:

- Paramedic escort, with on-going assessment of medical condition, to an appropriate OCEMS facility is required for persons with unstable vital signs (see above), pulse oximetry of 90% or less on room air, or as identified in a specific SO.
- Paramedic escort is required when an ALS medication or procedure has been provided under SO (except for special circumstances defined for MCIs).
- ALS escort is required for Cardiovascular, Stroke-Neurology, and Trauma triaged specialty patients.

Approved:

Carl H. Schultz, MD
OCEMS Medical Director

Tammi McConnell, MSN, RN
OCEMS Administrator

Original Date:	02/1992 (previously policy I-40)
Reviewed Date(s):	4/1/2015, 5/02/2018, 02/07/2019, 02/11/2020; 01/2021
Revised Date(s):	4/1/2015, 5/10/2018, 02/07/2019: 08/12/2019, 02/11/2020; 04/28/2020; 02/11/2021
Effective Date:	4/01/2021

ALS TREATMENT WITHOUT BASE HOSPITAL CONTACT WHEN REQUIRED BY STANDING ORDER OR DURING RADIO COMMUNICATION FAILURE

I. AUTHORITY:

Health and Safety Code, Division 2.5, Section 1798. California Code of Regulations, Division 9, Title 22, Section 100145, 100169.

II. APPLICATION:

This policy defines the steps to be followed in the event that a patient requires or receives an advanced life support intervention for which on-line medical control is necessary and one of the following occurs: 1) the paramedic is unable to establish or maintain communications with the base hospital / pediatric resource center; or 2) the patient has left the scene before base hospital / pediatric resource center contact occurs.

This policy does not apply to the use of "standing orders" utilized prior to initiating contact with a base hospital / pediatric resource center.

III. OBJECTIVES:

A. To provide a mechanism for review of care provided in the absence of required on-line medical control.

B. To identify communication failures within the Orange County EMS system to allow for correction of possible communication system deficiencies.

IV. DEFINITION:

"Communication failure" means the inability of a paramedic to communicate with a base hospital / pediatric resource center due to equipment, transmission, and/or reception problems.

"**Absence of standing order required on-line medical control**" refers to lack of base hospital / pediatric resource center contact when required by standing order

V. PROCEDURE:

A. When a paramedic has established that a direct or an alternative communication link with a base hospital / pediatric resource center is required, but not possible, and the patient(s) condition requires immediate intervention, the paramedic may initiate or maintain ALS treatment until communication is established, or the patient(s) is delivered to an Emergency Receiving Center (ERC), or a physician at the scene assumes responsibility for the care of the patient.

B. A Prehospital Care Report (PCR) will be completed as per usual to document the patient's assessment, treatment, and response to treatment.

C. The paramedic is responsible to contact the Emergency Receiving Center to give report and to advise them of the patient's impending arrival.

D. In cases where a patient receives or requires an ALS intervention but is no longer on scene, base hospital / pediatric resource center contact should not be made solely for the purpose of documentation but may be made for other reasons. Regardless of whether base hospital / pediatric resource center contact is made, paramedics must complete the documentation as described in E below.

ALS TREATMENT WITHOUT BASE HOSPITAL CONTACT WHEN REQUIRED BY STANDING ORDER OR DURING RADIO COMMUNICATION FAILURE

E. When base hospital / pediatric resource center contact is required but not made, paramedics must complete the OCEMS Report of ALS Services Provided Without Base Hospital Contact section (complete the 330.15 questions) within the ePCR. A report is automatically generated to OCEMS.

F. The OCEMS ALS Coordinator shall review and evaluate each incident for appropriateness of ALS interventions within ten (10) days of the occurrence. The ALS Coordinator is responsible for notification of the OCEMS Medical Director of all cases as well as the appropriate Base Hospital Coordinator.

G. All occasions of ALS interventions provided without base hospital / pediatric resource center contact will be trended at the OCEMS-level and be included in the base hospital / pediatric resource center quality improvement - monitoring plan as a quality indicator.

Approved:

Carl H. Schultz, MD
OCEMS Medical Director

Tammi McConnell, MSN, RN
OCEMS Administrator

Original Date:	3/1985
Reviewed Date(s):	9/2014; 12/2018; 2/2021
Revised Date(s):	12/14/2018; 02/25/2021
Effective Date:	04/01/2021