

# **Napa County Fire Department 2022**

## **Emergency Medical Services Quality Improvement Plan (EQIP)**



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## INTRODUCTION

The Napa County Fire Department (NCFD) provides primary first-response basic life support (BLS) which includes three field Battalion Chiefs, seven career fire stations and nine volunteer companies in the unincorporated areas of Napa County and by agreement to automatic aid areas of the City of Napa Fire Department, Calistoga Fire Department, Saint Helena Fire Department, and American Canyon Fire Protection District. As a BLS provider within the Napa County Emergency Medical Services Agency (NCEMSA) system, the NCFD is committed to active participation in the Continuous Quality Improvement (CQI) program established by NCEMSA. The NCFD is responsible for conducting internal CQI activities by analyzing processes, structures, and outcomes in key areas in compliance with the identified State of California Core Measures. This CQI plan describes how the NCFD, as part of a team comprised of other BLS and ALS providers, receiving hospitals, and NCFD /CAL FIRE Emergency Command Center (ECC, dispatch) develops the processes utilized for evaluating and improving the quality of prehospital care in the Napa County and ensures that the delivery of emergency medical services is consistent with the NCFD mission statement.

## Mission

The mission of the organization encompasses four segments in the description of who we are as an organization. These include who we are, what we do, how we do it, and for whom. While the mission of an organization usually does not change dramatically during planning periods, it can change dramatically over time. Today, the preponderance of calls for service are medical in nature. While fire suppression still remains a core competency, the fire department provides all risk emergency services to the Napa community including hazardous material mitigation and technical rescue.

The Mission of the Napa County Fire Department is:

*“Working together for your safety: Proudly serving our community with courtesy, integrity, and compassion”*

## Vision

The 2022 Vision of the Napa County Fire Department is to be a recognized leader:

“In providing all risk emergency response services through our combination department consisting of volunteer and career personnel, and resources; optimizes the use of current technology and commits to utilizing future technological improvements in an effort to support our members, our community, and in delivering exceptional service, and; Providing all risk emergency response services through integrated methods and processes of continuous quality improvement in everything we do.”

## Values

Organizational values describe the desired behaviors of the organization. The Napa County Fire Department prides itself on serving the communities with courtesy, integrity and compassion. We believe our behaviors and our decisions are based on values. Values are the foundation for an organization, its members, and its customers; defining what is important and what is expected of them.

The values of the Napa County Fire Department are:

<i>Integrity</i>	<i>Teamwork</i>
<i>Professional</i>	<i>Service</i>
<i>Trustworthy</i>	<i>Family</i>
<i>Knowledgeable</i>	<i>Courteous</i>
<i>Accountable</i>	<i>Compassionate</i>

## Purpose

The purpose of the Napa County Fire Department CQI plan is to develop a system for evaluating the delivery of BLS care in Napa County.

In addition to the evaluation and reporting of key indicators as required by the NCEMSA, the NCFD employs an internal process to evaluate and improve the quality of prehospital care to ensure every patient receives the best medical possible. In order to develop objective procedures for measuring and improving patient care outcomes, NCFD EMS coordinator will coordinate CQI activities with NCEMSA as well as other cooperators as indicated. The NCFD EMS Coordinator is the Training Bureau staff member assigned quality assurance/improvement activities in the Department. The EMS Coordinator also represents the Department on the EMS CQI, EMS Coordinators, MAC and other committees as required. The NCFD EQIP has been written in accordance with the California Emergency Medical Services System Quality Improvement Program Model Guideline (Rev. 3/04).

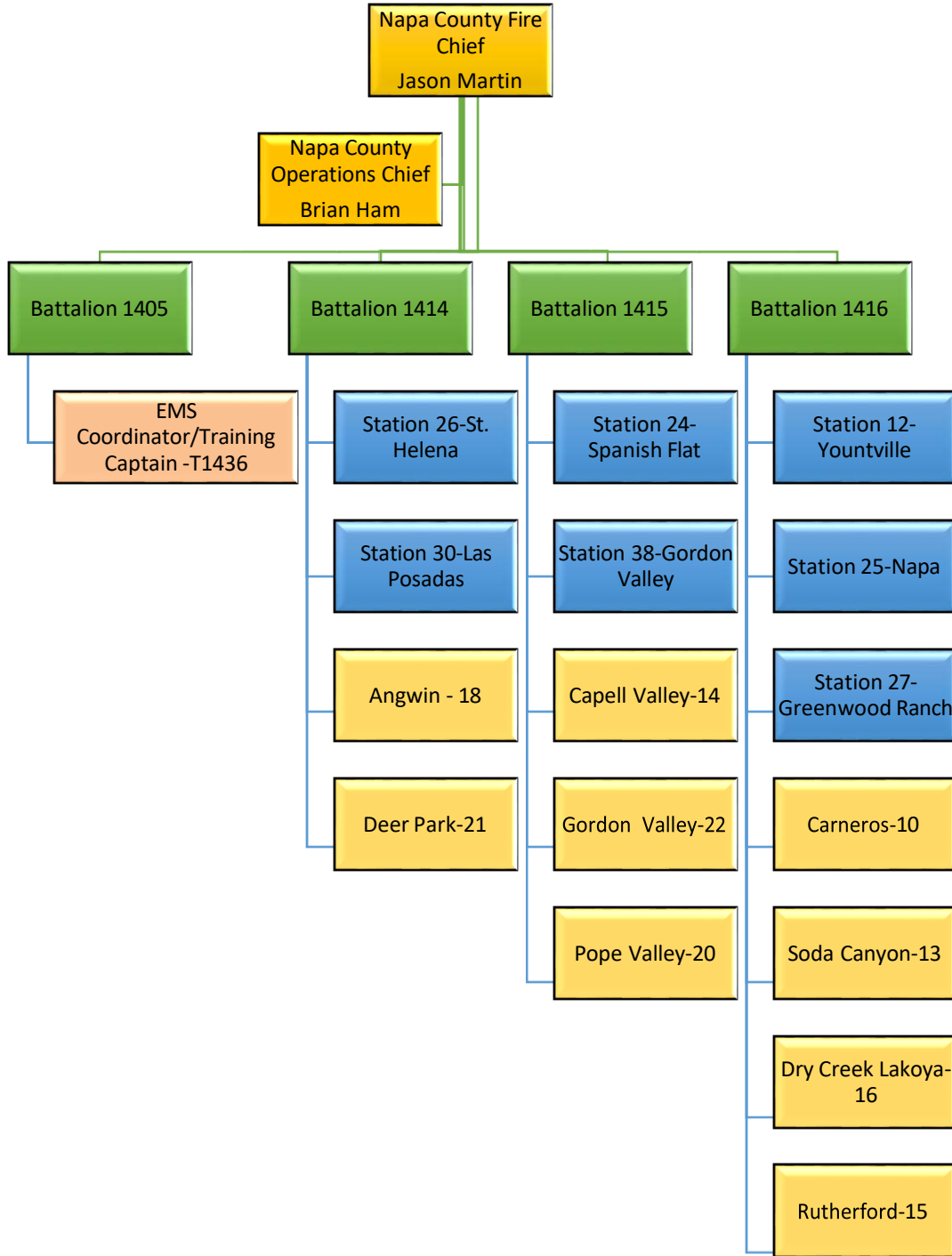
## SECTION I

### STRUCTURE AND ORGANIZATIONAL DESCRIPTION

The NCFD EMS Coordinator has primary responsibility for the quality improvement activities within the Department. The EMS Coordinator works in cooperation with the Fire Chief, Operations Division Chief and Battalion Chiefs in the performance of his/her duties. Responsibilities of the EMS Coordinator, include, but are not limited to:

- Review/perform CQI audit of significant EMS calls
- Attend NCEMSA required meetings
- Develop and deliver training plans to meet requirements outlined by the State and NCEMSA
- Act as liaison with other allied EMS system providers
- Provide recommendations for provider training and remediation as required
- Participate in the selection and development of NCEMSA quality improvement indicators

## Napa County Fire Department Organizational Chart



## **Primary Healthcare Services/Processes and Associated Standards and Requirements**

The NCFD is the primary patient care provider for medical incidents in the unincorporated areas of Napa County. As a BLS provider since 1926 in Napa County, the NCFD meets or exceeds established standards in the following areas:

- Dispatch
- Equipment and Supplies
- Communications
- Disaster Preparedness
- System Committee Participation
- Community Education/Prevention
- Receiving Facility Relations
- Safety and Infection Control
- CQI Program
- Inquiries and Complaints
- Reporting Responsibilities

## **Organizational Goals and Objectives**

- Provide orientation to the NCEMSA to new personnel
- Ensure personnel meet State and NCEMSA training requirements (skill competencies)
- Develop and assist CQI program participants in the development of performance indicators
- Coordinate the provision of, or directly provide the necessary training for implementation of new procedures
- Review and revise internal procedures as required
- Communicate to other allied EMS system participants the predetermined relevant systems information and statistics
- Provide a central information center for educational activities
- Educate and counsel personnel who do not meet established thresholds
- Recognize, reward and reinforce the positive position of prehospital care

## **SECTION II DATA COLLECTION AND REPORTING**

The NCFD provides the NCEMSA with performance indicator data. Data are collected, reviewed, and analyzed by the EMS Coordinator in conjunction with representatives of other Napa County EMS system participants. The indicators are chosen from the following data collection and reporting categories:

1. Personnel
2. Equipment and Supplies
3. Documentation
4. Clinical Care and Patient Outcomes
5. Public Education and Prevention
6. Transportation/Facilities
7. Risk Management

In addition to the evaluation of indicator data, an internal collection, reporting and evaluation of 'Field Care Notes' (Appendix A) pertaining to Cardio Cerebral Resuscitation (CCR), Automatic External Defibrillator (AED) use, EpiPen administration, Naloxone administration, patient deaths in the field, injuries of on duty NCFD employees, tourniquet use and after-action reporting of medical responses related to technical rescues, and significant motor vehicle accidents

## **SECTION III EMS SYSTEM EVALUATION OF INDICATORS**

The NCFD EMS Coordinator collects and analyzes performance indicator data each quarter in cooperation with other Napa County EMS System participants. The results of this evaluation process are presented at the Napa County CQI Committee meeting.

In addition to evaluating indicators that can be quantified in control charts, the NCFD also routinely presents issues to the Napa County CQI Committee for discussion based upon case reviews conducted by the NCFD EMS Coordinator. These case reviews are selected and presented to provide an opportunity to review performance data for trends in skills competency and to identify training needs.

Indicators may be added during the calendar year based upon trend analysis or opportunities for improvement that present through the quality improvement process.



Lastly, with the assistance of NCEMSA and AMR, NCFD reviews CodeSTAT reports with responders to identify areas for improvement and discuss first responder performance on all cardiac arrest calls. The areas reviewed during CodeSTAT include but not limited to:

- Compression Ratio
- Compression Rate
- Initial Rhythm
- Discussion to identify cause and origin for any pause in CPR greater than ten (>10) seconds
- Evaluation of pre-and post-shock CPR pauses

## **Personnel**

NCFD personnel maintain certification and accreditation status as outlined in State Title 22 regulations and NCEMSA policies and procedures.

NCEMSA assists providers by developing training tools and hosting a train-the-trainer session each year on the new guidelines and procedures. NCFD personnel stay current and knowledgeable regarding the policies and procedures of the NCEMSA via training provided by the department regarding treatment guideline and policy update classes during the fourth quarter of each year. These treatment guidelines and policy updates are presented to NCFD personnel via Target Solution training platform as well as instructor based training.

## **Equipment and Supplies**

All NCFD apparatus are equipped in accordance with NCEMSA Administrative Policy #401. Additionally, all front-line apparatus (paid and volunteer) are equipped with adult/pediatric Epi-pens.

## **Documentation**

NCFD personnel document patient 'Field Care Notes' which are given to transport personnel upon transfer of care in the field. A copy of the Field Care Notes is included into the Patient Care Report, completed upon arrival at the hospital. Field Care Notes are retained at respective responding station for five years. Completed Field Care Notes which include the following call types; Cardio Cerebral Resuscitation (CCR), Automatic External Defibrillator (AED) use, EpiPen administration, Naloxone administration are forwarded to the NCFD EMS Coordinator. For all Cardio Cerebral Resuscitation incidents where a BLS AED is used, a AED Use Form (Appendix B) will be completed.

CALFIRS (California Fire Incident Reporting System) is the reporting system utilized for logging all medical incidents within the County. NCFD will be transitioning and utilizing EPCR software in 2022.

### **Clinical Care and Patient Outcome**

NCFD quality insurance activities is 100% chart review to ensure compliance with all NCEMSA policies and procedures. Discrepancies are addressed by the NCFD EMS coordinator.

### **Public Education and Prevention**

The NCFD actively participates as a member of the Napa County Emergency Medical Care Committee sub-committee Public Information and Education (PIE). This committee focuses on providing information and education about EMS to the public. The NCFD actively leads the Hands-Only CPR (HOCPR) initiative in Napa County through direct provision of HOCPR training to residents and County employees, encouraging local business challenges and sponsoring HOCPR events throughout the County.

### **Transportation/Facilities**

All transports are performed in partnership with the Napa County EMS Agency exclusive ambulance provider. The current contract provider is American Medical Response (AMR).

### **Risk Management**

The NCFD fully investigates all complaints and issues regarding patient care or on-scene communications issues that are brought to their attention. These incident reviews are tracked and recorded and kept in a secure file. All incident reviews are protected from disclosure by the California Evidence Code 1157 and 1157.7. The NCFD cooperates with the NCEMSA during its annual inspection of each provider in Napa County, in which records are reviewed to ensure compliance with all federal, state, and local ordinances, laws, regulations, and policies.

## **SECTION IV EMS OPPORTUNITY TO IMPROVE QUALITY**

### **Educational Process**

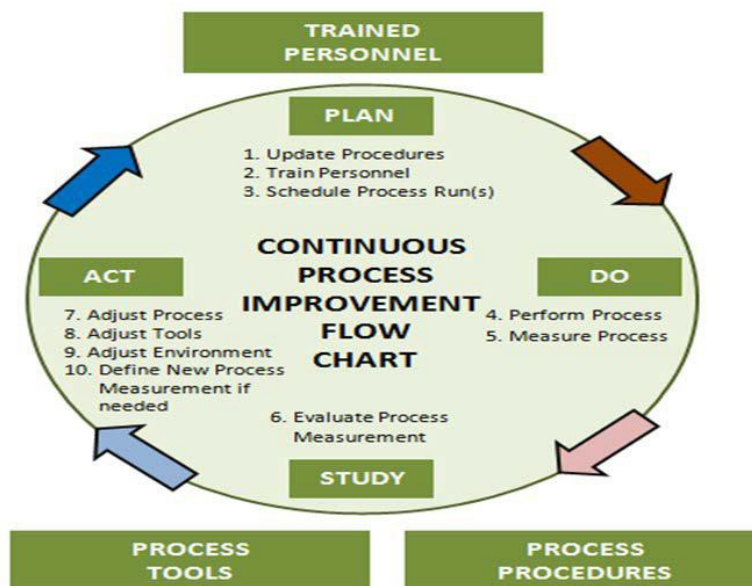
Training and CQI go hand in hand. As the CQI model identifies trends and quantifies issues in the EMS system, the provider QI coordinators incorporate training programs directed at correcting opportunities identified in the CQI process.

NCFD assists personnel obtain required training, consisting of:

- Annual Policy Update
- Basic Life Support
- Continuing Education
- Volunteer Firefighter Public Safety Training

CQI is a dynamic process that provides critical feedback and performance data on the EMS system based on defined indicators that reflect standards in the community, state and the nation. The NCFD complies with the NCEMSA and follows the Plan, Do, Study, Act (PDSA) Cycle for all improvements in the EMS system.

1. Plan
  - a. What is the objective?
  - b. Questions and predictions
  - c. Plan to carry out the cycle (who, what, where when?)
  - d. Plan for data collection
2. Do
  - a. Carry out the plan
  - b. Document problems and unexpected observations
  - c. Begin analysis of the data
3. Study
  - a. Complete the analysis of the data
  - b. Compare data predictions
  - c. Summarize what was learned
4. Act
  - a. What changes need to be made?
  - b. What is the next cycle?



## SECTION V ANNUAL UPDATE

### Napa County Annual Report

The NCFD EMS coordinator and Command Staff will evaluate the QI Program at least annually. This group will be tasked with ensuring that the QI Plan is in alignment with NCEMSA’s strategic goals, and will review the plan to identify what did and did not work. From this evaluation, an Annual Update will be provided that includes the following information:

1. Description of agency
2. Statement of EMS QI Program goals and objectives
3. List and define indicators utilized during the reporting year
  - a. Define state and local indicators
  - b. Define provider specific indicators
  - c. Define methods to retrieve data from receiving hospitals regarding patient diagnoses and disposition
  - d. Audit critical skills
  - e. Identify issues for further system consideration
  - f. Identify trending issues
  - g. Create improvement action plans (what was done and what needs to be done)
  - h. Describe issues that were resolved
  - i. List opportunities for improvement and plans for next review cycle
  - j. Describe continuing education and skill training provided as a result of Performance Improvement Plans
  - k. Describe any revision of in-house policies
  - l. Report to constituent groups
  - m. Describe next year’s work plan based on the results of the reporting year’s indicator review

#### 4. Sample Work Plan Template

Indicators Monitored	Key Findings / Priority Issues Identified	Improvement Action Plan / Plans for further action	Were goals met? Is follow-up needed?



# CAL-FIRE/COUNTY FIRE DEPARTMENT EMS FIELD NOTES



Patient Name		Last	First	Date	Time Out	At Scene	Incident #
Patient Address		City	State	Zip	Incident Location		City
Age	Gender	M <input type="checkbox"/>	F <input type="checkbox"/>	Weight	Patient #	Incident Type	Med Aid <input type="checkbox"/>
							T/C <input type="checkbox"/>
							Extrication <input type="checkbox"/>
							Rescue <input type="checkbox"/>
							Fire <input type="checkbox"/>
							MCI <input type="checkbox"/>
Triage Tag #		Transport	Ground <input type="checkbox"/>	Air <input type="checkbox"/>	RAS/AMA	Emergency Units at Scene	
Distress Level		None <input type="checkbox"/>	Minor <input type="checkbox"/>	Moderate <input type="checkbox"/>	Major <input type="checkbox"/>	POLST <input type="checkbox"/>	DNR <input type="checkbox"/>
						Doctor	
<b>Chief Complaint / Current History / Treatments:</b>					<b>Medical History:</b> Asthma Stroke Cardiac CHF COPD Seizures Diabetic		
<b>Time</b>	<b>SPO2</b>	<b>Pulse:</b> Rate/Character		<b>Blood Pressure</b>	<b>Respirations</b>	<b>Lung Sounds</b>	<b>Medications</b>
	%			/	BPM		
	%			/	BPM		
	%			/	BPM		
	%			/	BPM		
	%			/	BPM		
<b>Blood Glucose Reading:</b>							
<b>CPR / AED</b> (CAL-FIRE 713 required if AED used)					<b>Allergies</b>		
Down Time	Witnessed		Time CPR Start	Bystander / Hands Only			
	Y <input type="checkbox"/>	N <input type="checkbox"/>		Y <input type="checkbox"/>	N <input type="checkbox"/>		
ROSC	Compression Device		Double AED	# of Shocks:	Public AED Used		
Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>		Y <input type="checkbox"/>	N <input type="checkbox"/>	
<b>Airway Management</b>		O2 _____ LPM		BVM <input type="checkbox"/> Mask <input type="checkbox"/> Cannula <input type="checkbox"/> OPA <input type="checkbox"/> NPA <input type="checkbox"/> Suction <input type="checkbox"/>		Improvement after O2	
						Y <input type="checkbox"/> N <input type="checkbox"/>	
<b>Breathing</b>		<b>Skin Color</b>		<b>Skin Moisture/Temp</b>		<b>Capillary Refill</b>	
<input type="checkbox"/> Normal	<input type="checkbox"/> Normal	<input type="checkbox"/> Normal	<input type="checkbox"/> Normal	<input type="checkbox"/> Normal	<input type="checkbox"/> Normal	<b>Pupils</b>	
<input type="checkbox"/> Labored	<input type="checkbox"/> Pale	<input type="checkbox"/> Dry	<input type="checkbox"/> < 2 Secs	<input type="checkbox"/> < 2 Secs	<input type="checkbox"/> Pinpoint	4 Spontaneous	
<input type="checkbox"/> Shallow	<input type="checkbox"/> Flushed	<input type="checkbox"/> Moist	<input type="checkbox"/> Delayed	<input type="checkbox"/> Delayed	<input type="checkbox"/> Dilated	3 To Voice	
<input type="checkbox"/> Retractive	<input type="checkbox"/> Cyanotic	<input type="checkbox"/> Cold	<input type="checkbox"/> >2 Secs	<input type="checkbox"/> >2 Secs	<input type="checkbox"/> Reactive	2 To Pain	
<input type="checkbox"/> Absent	<input type="checkbox"/> Other	<input type="checkbox"/> Cool	<input type="checkbox"/> Absent	<input type="checkbox"/> Absent	<input type="checkbox"/> Non-Reactive	1 None	
		<input type="checkbox"/> Hot			<input type="checkbox"/> Unequal-L>R	<b>Glasgow Coma Scale - Head Injury</b>	
					<input type="checkbox"/> Unequal-R>L		
Head		Abdomen		No S/S <input type="checkbox"/>			
No S/S <input type="checkbox"/>		No S/S <input type="checkbox"/>					
Neck		Back/Spine		No S/S <input type="checkbox"/>			
No S/S <input type="checkbox"/>		No S/S <input type="checkbox"/>					
Chest		Pelvis		No S/S <input type="checkbox"/>			
No S/S <input type="checkbox"/>		No S/S <input type="checkbox"/>					
Lungs		Extremities		No S/S <input type="checkbox"/>			
No S/S <input type="checkbox"/>		No S/S <input type="checkbox"/>					
<b>Narcan</b>		#1 Time _____	#3 Time _____	<b>Epi Pen</b>		#1 Time _____	Adult <input type="checkbox"/>
		#2 Time _____	#4 Time _____			#2 Time _____	Ped <input type="checkbox"/>
							Self Administered <input type="checkbox"/>
							Self Administered <input type="checkbox"/>
Treating Personnel						Documenting Officer (Print)	
1)		2)		3)			

Proudly Serving the Communities of Sonoma County, The Sea Ranch, Napa County, So. Lake and Lake County



# Napa County Fire Department Automated External Defibrillator Use Form

AED ID NUMBER		Emergency Unit at Scene	
RESPONDING UNIT		INCIDENT # (If Applicable) CA	
STATION	STATION PHONE #	CONTACT	
DATE	PATIENT AGE <input type="checkbox"/> APPROX	MALE	FEMALE
COLLAPSE TO 911 CALL (ESTIMATED MINUTES)			
ARREST YES <input type="checkbox"/> NO <input type="checkbox"/>		WITNESSED YES <input type="checkbox"/> NO <input type="checkbox"/>	
CPR PRIOR TO ARRIVAL YES <input type="checkbox"/> NO <input type="checkbox"/>	BYSTANDER YES <input type="checkbox"/> NO <input type="checkbox"/>	COLLAPSE TO INITIAL CPR (ESTIMATED MINUTES)	
TIME 911 ACTIVATED		TIME OF DISPATCH	
TIME OF ARRIVAL FOR AED COMPANY		TIME AED APPLIED TO PATIENT	
FIRST "PRESS TO ANALYZE" RESULTED IN <input type="checkbox"/> SHOCK <input type="checkbox"/> NO SHOCK		NUMBER OF SHOCKS PRIOR TO ALS	

PERFUSABLE RHYTHM POST DEFIBRILLATION    YES  NO   
 RETURN OF PULSE    YES  NO   
 PATIENT TRANSPORTED    YES  NO

IF SUCCESSFUL DEFIBRILLATION:

TIME	B/P	PULSE	RESPIRATORY RATE
------	-----	-------	------------------

NARRATIVE OF INCIDENT:

AED CREW MEMBERS:

\_\_\_\_\_  
COMPANY OFFICER'S NAME

\_\_\_\_\_  
CREW MEMBER'S NAME

\_\_\_\_\_  
CREW MEMBER'S NAME

\_\_\_\_\_  
CREW MEMBER'S NAME

\_\_\_\_\_  
CREW MEMBER'S NAME

\_\_\_\_\_  
CREW MEMBER'S NAME