

San Joaquin Operational Area



Healthcare Coalition

Burn Surge Annex

July 20, 2021

San Joaquin County Emergency Medical Services Agency
P.O. Box 220, French Camp, California 95231

San Joaquin Operational Area Healthcare Coalition
Burn Surge Annex

Record of Changes

Date	Changes	By

San Joaquin Operational Area Healthcare Coalition
Burn Surge Annex

TABLE OF CONTENTS

Table of Contents	2
1 Introduction	4
1.1. Purpose	4
1.2. Scope	4
1.3 Authority	4
1.4 Overview/Background of Healthcare Coalition and Situation	4
1.5 Assumptions	6
2 Concept of Operations	7
2.1 Activation	7
2.2 Notifications	8
2.3 Role and Responsibilities	8
2.4 Logistics	9
2.4.1 Space	10
2.4.2 Staff	10
2.4.3 Supplies	11
2.5 Special Considerations	11
2.5.1 Behavioral Health	11
2.5.2 Decontamination	12
2.6 Operations – Medical Care	12
2.6.1 Triage	12
2.6.2 Treatment	12
2.7 Transportation	13
2.8 Tracking	13
2.9 Reunification	13
2.10 Deactivation and Recovery	14
3 Appendixes	14
3.1 Burn Care Resources	14
3.2 Burn Education Resources	15
3.3 Behavioral Health Resources	15

San Joaquin Operational Area Healthcare Coalition
Burn Surge Annex

San Joaquin Operational Area Healthcare Coalition Burn Surge Annex

1. Introduction

All hospital Emergency Departments are prepared to receive, stabilize, and manage burn patients. However, given the limited number of burn specialty hospitals, an emergency resulting in large numbers of burn patients may require Medical Health Operational Area Coordinator (MHOAC) coordination to ensure those patients who can most benefit from burn specialty services receive priority for transfer. Additionally, burn center physicians may be able to help identify patients who do not require burn center care and are appropriate for transfer to other health care facilities.

1.1 Purpose

This annex applies to a multi-casualty incident with a large number of burn patients that exceed the capacity of the seven acute care hospitals in the county. It supports the SJOA Healthcare Coalition Emergency Operations Plan by addressing specific needs of burn patients and supporting appropriate medical care during a disaster. This plan is intended to support, not replace, any existing facility or agency policy or plan by providing uniform response actions in the case of an emergency that involves (or could involve) significant numbers of burn victims.

1.2 Scope

The San Joaquin Operational Area Healthcare Coalition Burn Surge Annex encompasses all participating healthcare facilities, providers, public and private medical and health agencies/organizations, pre-hospital care service providers, public safety agencies, non-government agencies, and other community partners operating within the geographic boundaries of San Joaquin County.

1.3 Authority

This annex is issued under the authority of the San Joaquin County Emergency Medical Services Agency Administrator, who serves as the Medical Health Operational Area *Coordinator (California Health and Safety Code, Division 2.5, Sections 1797.153 and 1797.220)*.

1.4 Overview/Background of Healthcare Coalition and Situation

- The population of San Joaquin County is 762,148¹

¹ <https://www.census.gov/quickfacts/fact/table/sanjoaquincountycalifornia,CA/PST045219>

San Joaquin Operational Area Healthcare Coalition Burn Surge Annex

- Major trauma burn patients received by San Joaquin General Hospital

Major Trauma Patients Received by SJGH	2019	2020
Burn activations	67	58
Burn patients transferred to higher level of care	25	22

(Table 1)

- San Joaquin County has seven acute care receiving hospitals, including one level II trauma center.

Hospital	Address	Trauma Center Designation ²
Adventist Health Lodi Memorial	975 S. Fairmont Ave. Lodi, CA 95240	N/A
Dameron Hospital	525 West Acacia St. Stockton, CA 95203	N/A
Doctor's Hospital of Manteca	1205 E. North St. Manteca, CA 95336	N/A
Kaiser Hospital Manteca	1777 W. Yosemite Ave. Manteca, CA 95337	N/A
San Joaquin General Hospital	500 West Hospital Rd. French Camp, CA 95231	Level II
St. Joseph's Medical Center	1800 N. California St. Stockton, CA 95204	N/A
Sutter Tracy Community Hospital	1420 N. Tracy Blvd. Tracy, CA 95376	N/A

(Table 2)

- There are five trauma centers designated to receive San Joaquin County trauma patients³

Hospital	Address	Trauma Center Designation ³
San Joaquin General Hospital (Primary)	500 West Hospital Rd. French Camp, CA 95231	Level II
UC Davis Medical Center (Alternate)	2315 Stockton Blvd. Sacramento, CA 95817	Level I
Kaiser South Sacramento (Alternate)	6600 Bruceville Rd. Sacramento, CA 95823	Level II
Doctor's Medical Center (Alternate)	1441 Florida Ave. Modesto, CA 95350	Level II
Memorial Medical Center (Alternate)	1700 Coffee Rd. Modesto, CA 95355	Level II

(Table 3)

² American College of Surgeons <https://www.facs.org/quality-programs/trauma>

³ EMS Policy No. 4709 Trauma Center Service Areas <https://www.sjgov.org/ems/pdf/policies>

San Joaquin Operational Area Healthcare Coalition Burn Surge Annex

- America Burn Association – Regional Burn Centers⁴ (Northern California)

Hospital	Address	Phone
UC Davis Medical Center	2315 Stockton Blvd. Sacramento, CA 95817	916-734-3636
Shriners Hospitals for Children	2425 Stockton Blvd., Ste. 718 Sacramento, CA 95817	916-453-2050
Santa Clara Valley Medical Center	751 S. Bascom Ave. San Jose, CA 95128-2604	800-606-2876
San Francisco General Hospital	1001 Potrero Ave., 4E San Francisco, CA 94110	415-206-8201
Bothin Burn Center	900 Hyde St. San Francisco, CA 94109	415-353-6255
Community Regional Leon S. Peters Burn Center	2823 Fresno St. Fresno, CA 93721	559-459-4220

(Table 4)

- Radiation Injury Treatment Network (RITN)⁵ participating hospitals (Northern California)

Hospital	Address	Phone
UC Davis Medical Center	2315 Stockton Blvd. Sacramento, CA 95817	916-734-3636
UC San Francisco Medical Center	505 Parnassus Ave. San Francisco, CA 94143	415-353-7111
Stanford Hospital	500 Pasteur Dr. Stanford, CA 94305	650-723-4000

(Table 5)

1.5 Assumptions

- All San Joaquin County acute care receiving hospitals are prepared to receive, stabilize, and manage burn patients.
- All seven acute care receiving hospitals in San Joaquin County are equipped to decontaminate contaminated patients.
- The Disaster Control Facility (DCF) at San Joaquin General Hospital has primary responsibility for providing patient destinations during multi-casualty incidents.

⁴ <http://ameriburn.org/public-resources/burn-center-regional-map/>

⁵ <https://ritn.net/workarea/downloadasset.aspx?id=17179869213>

San Joaquin Operational Area Healthcare Coalition Burn Surge Annex

- The Regional Disaster Medical Health Coordinator (RDMHC) has primary responsibility for the coordination of patient movement within Mutual Aid Region IV.
- Burn and trauma centers will play a major role in the receipt and care of burn patients.
- Care of critical burns is extremely resource-intensive and requires specialized staff, expert advice, and critical care transportation assets.
- Severe burn patients often become clinically unstable within 24 hours of injury, complicating transfer plans after this time frame.
- Federal resources (e.g., ambulance contracts, National Disaster Medical System teams), though potentially available to assist, cannot be relied upon to mobilize and deploy for the first 72 hours.

2. Concept of Operations

All San Joaquin County acute care receiving hospitals are prepared to receive, stabilize, and manage burn patients. However, burn patients that meet major trauma triage criteria⁶ must be transported to a trauma center for care.

The following EMS Agency policies⁷ govern the management of multi-casualty incidents, patient destinations, trauma care, and transportation:

- EMS Policy No. 7010 MCI Field Operations
- EMS Policy No. 7020 MCI Control Facility Operations
- EMS Policy No. 5215 Trauma Patient Destination
- EMS Policy No. 5210 Major Trauma Triage Criteria
- EMS Policy No. 5201 Medical Patient Destination
- EMS Policy No. 5001 Authority for Medical Emergency Management
- EMS Policy No. 4709 Trauma Center Service Areas
- EMS Policy No. 4448 EMS Aircraft Utilization

2.1 Activation

Activation of this annex will be concurrent with the activation of the multi-casualty incident, involving a large number of burn patients. Hospitals will be notified by the Disaster Control Facility, via EMResource⁸.

⁶ https://www.sjgov.org/ems/pdf/policies/5210traumatriage_2_1_19.pdf

⁷ <https://www.sjgov.org/ems/policies.htm>

⁸ <https://emresource.juvare.com/login>

San Joaquin Operational Area Healthcare Coalition Burn Surge Annex

This annex can also be activated upon the request for burn surge assistance from any of the seven acute care receiving hospitals.

2.2 Notifications

2.2.1 Multi-Casualty Incidents (MCI)

- Prehospital personnel will notify the Disaster Control Facility (DCF), via radio or cell phone, of a MCI.
- The DCF creates a MCI event in EMResource to notify and poll receiving hospitals for the numbers of immediate, delayed, and minor patients they can receive, as well as the hospital's ability to decontaminate patients.

2.2.2 The Emergency Medical Services Agency Duty Officer is available on a 24/7 basis as the point of contact for the Medical Health Operational Area Coordinator (MHOAC).

- Normal Business Hours
 - i. Office (209) 468-6818
 - ii. Email emsdutyofficer@sjgov.org
- After Hours
 - i. Duty Officer Pager (209) 234-5032
 - ii. Dispatch (209) 236-8339

2.3 Roles and Responsibilities

2.3.1 Prehospital

- Respond to incident
- Notify the Disaster Control Facility of a multi-casualty incident
- Manage Medical Branch or Group operations
- Ensure contaminated patients are decontaminated prior to transport
- Triage, treat and transport patients

2.3.2 Disaster Control Facility

- Create a MCI event in EMResource to notify and poll receiving hospitals for the numbers of immediate, delay, and minor patients they can received, as well as each hospital's ability to decontaminate patients.
- Provide patient destinations to the Patient Transportation Group Supervisor, in the field.

San Joaquin Operational Area Healthcare Coalition Burn Surge Annex

2.3.3 Receiving Hospitals and Trauma Centers

- Receive patients
- Decontaminate patients, as needed
- Provide patient care and treatment
- Transfer patients to a higher level of care, as needed
- Activate facility medical surge plan, as needed
- Activate family reunification plan, as needed
- Discharge patients

2.3.4 Medical Health Operational Area Coordinator (MHOAC)

- Coordinate patient movement with Region IV, as needed.
- Submit Medical Health Situation Reports to Region IV and the state, as needed.
- Provide a list of hospitals that received burn patients from the multi-casualty incident to the San Joaquin County Office of Emergency Service to assist with family reunification, as needed.

2.4 Logistics

2.4.1 Space

Hospitals will use conventional patient care areas to treat burn patients. When necessary, hospitals will activate their medical surge plans to expand care into contingency spaces and/or implement alternate care sites.

Each hospital maintains 12 to 24 portable medical beds for rapid deployment to expand capacity. In addition, over 500 portable beds are maintained in the healthcare coalition cache, which are available upon request through the MHOAC program.

San Joaquin Operational Area Healthcare Coalition Burn Surge Annex

Northern California Burn Center Bed Capacities

Hospital	ICU Burn	Non-ICU Burn	Total Beds	Surge Capacity
UC Davis Medical Center ⁹	12	10	22	18
Shriners Hospitals for Children ¹⁰	10	20	30	N/A
Santa Clara Valley Medical Center ¹¹	8	N/A	8	12
San Francisco General Hospital ¹²	4-6	6	10-12	N/A
Bothin Burn Center ¹³	16	10	26	26
Community Regional Leon S. Peters Burn Center ¹⁴	10	10	20	15
Totals	60-62	56	116-118	71

(Table 6)

2.4.2 Staff

Hospitals manage their staffing needs by routinely calling back staff during periods of high census and/or medical surge, in accordance with their surge plans. When necessary, hospitals can submit a staffing flexibility request to the California Department of Public Health, Center for Health Care Quality¹⁵ to address staffing shortages.

2.4.2.1 Staff Training

- Trauma center nurse training includes adult and pediatric burn care, which is part of the required Trauma Nursing Core Course (TNCC)¹⁶ curriculum. Many acute care hospitals encourage Emergency Department nurses complete the TNCC course as well.
- The Prolonged Care of the Burn Patient in a Non-Burn Facility Following a Mass Casualty Incident E-Learning

⁹ <https://ameriburn.site-ym.com/members/Default.asp?id=20875320>

¹⁰ <https://ameriburn.site-ym.com/members/Default.asp?id=20875319>

¹¹ <https://ameriburn.site-ym.com/members/Default.asp?id=20875324>

¹² <https://ameriburn.site-ym.com/members/Default.asp?id=20875323>

¹³ <https://ameriburn.site-ym.com/members/Default.asp?id=20875322>

¹⁴ <https://ameriburn.site-ym.com/members/Default.asp?id=20875316>

¹⁵ <https://www.cdph.ca.gov/CDPH%20Document%20Library/ControlledForms/cdph5000a.pdf>

¹⁶ <https://www.ena.org/education/tncc>

San Joaquin Operational Area Healthcare Coalition Burn Surge Annex

modules (also known as the 96 Hour Plan) are available, at no cost, through the University of Utah Health Crisis Standards of Care website. See Appendix 3.2 Burn Education Resources for the login information.

- Additional burn care training is available through the American Burn Association. See Appendix 3.2 Burn Education Resources for more information.

2.4.3 Supplies

Hospitals will utilize their normal supply chains to procure and maintain necessary medical equipment and supplies required to stabilize and manage burn patients.

Hospitals with immediate unmet medical supply and/or equipment needs can request resources from other healthcare coalition member organizations, in accordance with the San Joaquin Operational Area Healthcare Coalition Memorandum of Understanding (MOU)¹⁷. In addition, resource requests can be submitted through the Medical Health Operational Area Coordinator (MHOAC)¹⁸ program, by entering requests into the WebEOC Resource Request and Deployment Module (RRDM)¹⁹.

The San Joaquin Operational Area Medical Health Multi-Agency Coordination (Med MAC) Group²⁰ will be activated, as needed, to establish priorities related to the allocation of critical resources.

2.5 Special Considerations

2.5.1 Behavioral Health

Given the nature and scope of a burn multi-casualty incident, it can be expected that a number of those who witnessed, were injured by, or responded to the event will experience some mental trauma in relation to the incident. Healthcare facilities should be prepared to identify and respond to these issues in their patients, patients' families, and their staff to the best of their ability.

In a large-scale disaster scenario, psychological first aid is an evidence informed approach, whose purpose (according to The American Psychological Association) is to "assess the immediate concerns and needs of an individual in the aftermath of a disaster".

¹⁷ <https://www.sjgov.org/ems/pdf/sjoahealthcare%20coalition%20mou.7.2.18.pdf>

¹⁸ California Code, Health and Safety Code Section 1797.153

¹⁹ <https://www.sjgov.org/ems/webeocinfo.htm>

²⁰ <https://www.sjgov.org/ems/pdf/appendixa.pdf>

San Joaquin Operational Area Healthcare Coalition Burn Surge Annex

Psychological First Aid advocates that mental health clinicians and emergency response workers work to understand the victim's world view, project a sense of calm, normalize feelings and reactions, provide information needed to de-escalate acute distress and provide education to the individual or family regarding "next steps" to take.

Healthcare coalition organizations can request Psychological First Aid (PFA) assistance for patients and/or family members by contacting the San Joaquin County Behavioral Health Services Crisis Center²¹, any time, at 209-468-8686.

The San Joaquin Area Critical Incident Support Team (SJACIST) is a group of volunteer chaplains and peer support personnel, trained to assist and support victims, their friends and relatives, as well as healthcare workers, during time of crisis and stress. The team is available 24/7, at no cost.

See Appendix 3.3 Behavioral Health Resources for more information.

2.5.2 Decontamination

Contaminated burn patients (e.g., chemical or radiological) will be decontaminated in the field prior to transport. All receiving hospitals have been trained and equipped to safely decontaminate patients.

2.6 Operations – Medical Care

2.6.1 Triage

Burn patients from multi-casualty incidents will be triaged in accordance EMS Policy No. 5210 Major Trauma Triage Criteria.

Secondary triage at trauma centers and/or acute care hospitals should be consistent with the triage criteria developed by the American Burn Association²² and/or the U.S. Department of Health and Human Services – Radiation Emergency Medical Management (REMM)²³ Burn Triage and Treatment guide.

2.6.2 Treatment

²¹ https://www.sjcbhs.org/crisis_intervention.aspx

²² <http://ameriburn.org/quality-care/disaster-response/>

²³ <https://www.remm.nlm.gov/burns.htm>

San Joaquin Operational Area Healthcare Coalition Burn Surge Annex

The prehospital treatment for burn patients in the field will be conducted in accordance with EMS Policy Section 5000 Prehospital Care²⁴.

The course of treatment for burn patients, in a trauma center and/or acute care hospital, will be determined by the attending physician, in consultation with a burn center.

2.7 Transportation

Burn patients at a multi-casualty incident will be transported by Advanced Life Support (ALS) ambulance to the appropriate hospital, as directed by the Disaster Control Facility.

Inter-facility transfers will be transported by Basic Life Support (BLS), Advanced Life Support (ALS), Critical Care Transport (CCT), or Air Ambulance, as determined by the transferring physician.

The California Patient Movement Plan²⁵ will be activated once the need to transport burn patients outside of Mutual Aid Region IV has been identified.

Patients transported outside of the state will be coordinated by the California Medical Health Coordination Center (MHCC) and the National Disaster Medical System (NDMS)²⁶.

2.8 Tracking

Burn patients from multi-casualty incidents will be tracked by the Disaster Control Facility (DCF) and Patient Transportation Group Supervisor.

Inter-facility transfers will be tracked by the transferring hospital.

2.9 Reunification

A list of hospitals that received burn patients from a multi-casualty incident will be collected by MHOAC, or designee, and forwarded to the San Joaquin County Office of Emergency Service (OES) to make available to the public, as needed.

Each hospital will active their reunification plans to reunite burn patients with family members, as needed.

²⁴ <https://www.sjgov.org/ems/policies.htm>

²⁵ https://emsa.ca.gov/wp-content/uploads/sites/71/2019/03/Patient-Movement-Plan_Final-3-6-19.pdf

²⁶ <https://www.phe.gov/Preparedness/responders/ndms/Pages/default.aspx>

San Joaquin Operational Area Healthcare Coalition Burn Surge Annex

2.10 Deactivation and Recovery

MCI field operations will be terminated by the Medical Branch Director, after all patients have been transported off scene. The Patient Transportation Group Supervisor will notify the Disaster Control Facility (DCF) when the incident has ended. The DCF will end the MCI event in EMResource, which will notify the activated trauma centers and receiving hospitals, that field operations have been terminated. Hospitals will deactivate surge plans once the surge of patients has ended. The MHOAC, or designee, will deactivate once Operational Area and/or Regional coordination is no longer required.

Prehospital, hospital and MHOAC program personnel will conduct incident critiques or hot washes, after the incident, to identify strengths, areas for improvement, and if needed, corrective actions. Findings will be documented in After Action Reports.

3 Appendices

3.1 Burn Care Resources

3.1.1 ASPR-TRACIE Burn Collection

<https://asprtracie.hhs.gov/technical-resources/28/burns/0>

3.1.2 American Burn Association

<http://ameriburn.org/>

3.1.2.1 Burn Center Referral Criteria

<http://ameriburn.org/wp-content/uploads/2017/05/burncenterreferralcriteria.pdf>

3.1.2.2 Western Region Burn Disaster Consortium – Burn Mass Causality Operations Plan

<http://ameriburn.org/wp-content/uploads/2021/03/final10.2020-wrbdc-bmci-operations-plan.pdf>

3.1.3 University of Utah Health Crisis Standards of Care

<https://crisisstandardsofcare.utah.edu/Pages/home.aspx>

3.1.3.1 Burn CSC App

- App Store
<https://apps.apple.com/us/app/uofu-health-burn-csc/id1521337083>
- Google Play
https://play.google.com/store/apps/details?id=com.universityofutahhealth.csc&hl=en_US&gl=US

San Joaquin Operational Area Healthcare Coalition Burn Surge Annex

3.1.4 Radiation Injury Treatment Network

<https://ritn.net/>

3.1.5 Radiation Emergency Assistance Center/Training Site (REAC/TS) Oak Ridge Institute for Science and Education

<https://orise.orau.gov/resources/reacts/index.html>

3.1.5.1 General Information:

1-865-576-3131

3.1.5.2 After-Hours:

1-865-576-1005 (Ask for REAC/TS)

3.1.5.3 REAC/TS RadMed App

- App Store

<https://apps.apple.com/us/app/reacts/id1472260982?ls=1>

- Google Play

https://play.google.com/store/apps/details?id=com.quickseries.rca.REAC.TS&hl=en_CA

3.2 Burn Education Resources

3.2.1 University of Utah Health Crisis Standards of Care

3.2.1.1 96 Hour Plan E-Learning Modules (Click request account on the login page)

<https://crisisstandardsofcare.utah.edu/Pages/training-96hr-main.aspx>

3.2.2 American Burn Association

3.2.2.1 Education Resources

<https://ameriburn.org/education/education-resources/>

3.2.3 Emergency Nurses Association

3.2.3.1 Trauma Nursing Core Course (TNCC)

<https://www.ena.org/education/tbcc>

3.3 Behavioral Health Resources

3.3.1 American Psychological Association

3.3.1.1 Psychological First Aid Resources

<https://www.apa.org/practice/programs/dmhi/psychological-first-aid/resources>

San Joaquin Operational Area Healthcare Coalition
Burn Surge Annex

- 3.3.2 Substance Abuse and Mental Health Service Administration (SAMHSA)
<https://www.samhsa.gov/>
 - 3.3.2.1 SAMHSA Disaster Mobil App
https://store.samhsa.gov/product/samhsa-disaster?referer=from_search_result
- 3.3.3 San Joaquin County Behavioral Health Services - Crisis Center
https://www.sjcbhs.org/crisis_intervention.aspx
 - 3.3.3.1 Primary 24/7 Contact:
209-468-8686
- 3.3.4 San Joaquin Area Critical Incident Support Team (SJACIST)
<http://www.sjacist.com/>
 - 3.3.4.1 Primary 24/7 Contact:
209-373-3288
 - 3.3.4.2 Secondary Contact:
209-479-1414