CASUALTY COLLECTION POINT GUIDELINES

PRELIMINARY DRAFT

I. INTRODUCTION

A. Purpose

These guidelines are meant to promote minimal standardization of Casualty Collection Points (CCPs) in the event of a disaster requiring a State medical response. Although the designation, establishment, and operation of CCPs are county responsibilities, standardization is necessary to ensure coordination of State and local responses. These guidelines also discuss CCP operations, including use, siting, and setup issues.

These guidelines describe a fully functional, full purpose CCP. Depending on the magnitude of a disaster and the availability of resources, a jurisdiction may decide that CCPs are not an appropriate disaster response strategy. Instead, the jurisdiction may choose to implement short term staging areas or other alternatives. In those instances, these guidelines may still prove useful for those more limited operations.

[Note that the central theme of this document is that CCPs are a response strategy of last resort. We encourage planning for other types of

operations as well, recognizing that CCPs may neither be feasible nor appropriate for all types of disasters or response environments.]

B. Scenario

These guidelines address the response to medical problems accompanying a catastrophic disaster in an urban area of California. Although a catastrophic earthquake is prototypical, Casualty Collection Points are relevant for any disaster which creates more casualties than a jurisdiction can handle, particularly when the very response system designed to respond to casualty needs is severely damaged.

The worst case scenario for a catastrophic earthquake on the Southern San Andreas fault is illustrative. As many as 20,000 people may be killed and another 80,000 seriously enough injured to require hospital care. There may be several hundred thousand victims with minor injuries who will seek medical care.

An earthquake of this magnitude will damage emergency medical and general emergency services response capabilities. Many hospitals will experience severe structural damage. Others will suffer reductions in service due to non-structural damage and loss of utilities and staff. The surviving emergency medical services system will be overwhelmed by the number of casualties converging on medical facilities.

Both emergency and routine communications will be disrupted further hindering the disaster response. Several hours may pass before county officials acquire the disaster intelligence needed to allocate scarce medical resources efficiently.

Roadways will be damaged by pavement failures, landslides, and traffic congestion due to accidents or abandoned vehicles. Water, natural gas, and electrical services to many areas may be interrupted for several days.

In summary, a catastrophic earthquake is likely to overwhelm local resources and create an environment which inhibits their effective application. It will require a massive infusion of assistance from state and federal government to meet the medical needs of earthquake victims. Such a situation will require a response system different in magnitude and type that used for day to day or even multiple casualty emergencies.

C. Planning Assumptions

1. Lifesaving responses will be performed by citizens and emergency responders of the impacted area.

   Regardless of the efficiency of state and federal response systems, life saving will occur because of local effort. Seriously injured victims will need to receive medical care quickly.

2. CCPs will operate in an uncertain environment.

a. The number, type and location of casualties; the status of roads and the emergency transportation system; and, other factors such as weather, day of the week, time of day, etc., cannot be confidently predicted. These factors will strongly influence not only the demand for medical care but also the availability of medical response resources.

b. The magnitude of the disaster coupled with disruptions in communications systems will require decision makers to act without complete information about the number, type, and location of casualties or impact on health facilities.

c. Regardless of the system designed by disaster response planners, affected populations will adopt strategies that appear to them most effective for obtaining medical care. This will result in convergence to known medical facilities such as hospitals or clinics regardless of their operational status. This behavior may also result in convergence to CCPs if their location is known to the public.

3. CCPs require logistic and personnel support from a wide variety of functions including law enforcement, fire, public works, purchasing, general emergency services, social services, etc. Medical personnel cannot setup and operate a CCP alone.

[If medical officials cannot obtain commitments from other functions for the performance of critical CCP activities, their counties' medical response plans should be modified to reduce reliance on CCPs.]

4. CCPs should be viewed as a last resort in the medical response to a disaster. (See below for factors to consider when making a decision about whether to establish CCPs).

   a. They require tremendous amounts of personnel and material resources to establish and operate.

   b. They are not part of the day-to-day system, hence their operation is not routinely practiced and refined.

   c. They require a very high degree of inter-function and interagency cooperation.

II. AUTHORITIES

To be provided

III. UPDATES

These guidelines supercede the February, 1985, CASUALTY COLLECTION POINT EMERGENCY MEDICAL CARE PLAN.

IV. CASUALTY COLLECTION POINT DEFINITION

[In California, we face a proliferation of Casualty Collection Points definitions. Although each jurisdiction is free to (and in fact, encouraged to) develop a medical response system that takes into account its resources, needs, and day-to-day procedures, we should standardize the definition of the CCP so we use the term consistently.]

For the purposes of these guidelines, CCPs are defined as:

> Sites predesignated by county officials for the congregation, triage, austere medical treatment, relatively long term holding, and evacuation of casualties following a major disaster.

[Medical responders will employ several types of ad hoc disaster medical operations in responding to a catastrophic disaster, including CCPs, staging areas and first aid stations. EMS responders, especially in the fire services, regularly use triage and staging areas for multiple casualty incidents. These operations share many characteristics with CCPs. They are designed for the rapid intake, triage, and staging for transport.

CCPs will perform these medical functions as well, but with one major exception. CCPs are designed for disaster responses in which casualties cannot be rapidly evacuated due to reduced transportation and/or hospital capabilities. In these cases, CCPs will need to hold casualties for extended periods of time, perhaps as

long as two or three days. The resource and organizational requirements outlined below are needed to support this holding capability.]

CCPs should be distinguished from First Aid Stations, Casualty Staging Areas and similar types of operations.

First Aid Stations

For the purposes of these guidelines, First Aid Stations are assumed to be designed for triage and minor treatment or referral of disaster victims with injuries or medical problems. First Aid Stations are generally not designed to provide substantial amounts of life saving care nor for long term casualty holding.

Casualty Staging Areas

Casualty Staging Areas are defined as areas created ad hoc for the triage, immediate stabilization, and rapid evacuation of seriously injured disaster victims. Casualty Staging Areas are not designed for long term holding of casualties. These guidelines, however, may be applicable to some aspects of Casualty Staging Area operations.

Under certain circumstances, either First Aid Stations or Casualty Staging Areas may be expanded to Casualty Collection Point status. This expansion will require the addition of medical personnel and logistic support to sustain the extended holding operation characteristic of CCPs.

V. CCP DESIGNATION AND ESTABLISHMENT

A. When Needed

Counties should consider establishing Casualty Collection Points when all of the following criteria are met:

1. The jurisdiction has either confirmed or strongly believes there are sufficiently large numbers of seriously injured casualties to overwhelm its medical transportation and treatment systems.

2. There is substantial damage or loss of function to hospitals.

3. The acute medical problems of the disaster require a protracted response.

4. Sufficient medical mutual aid to alleviate the acute medical problems of casualties will not arrive within two days.

[Jurisdictions should approach planning for CCPs realistically. Planning for short term triage, treatment, holding, and evacuation operations is difficult enough. Preparing for long term holding requires the identification and preparation of large amounts of resources. CCPs should be established only under the most severe circumstances.]

B. Factors Affecting CCP Establishment

The ability of a County to establish and operate a Casualty Collection Point depends on the following factors including:

1. Extent of damage to the medical care system especially hospitals and other medical facilities.

2. The number and type of available medical and support personnel.

3. Availability of medical and support equipment and supplies.

4. The number, location and injury severity of casualties.

5. How quickly casualties arrive at medical care sites.

6. How quickly surviving hospitals increase their capacity to care for disaster casualties by implementing discharge plans and expanding operations.

7. The availability of air and ground transport vehicles and routes to move casualties from CCPs to Regional Evacuation Points (REPs) or other sources of care. (REPs are ad hoc facilities operated by state and federal military medical forces for the congregation and holding

of casualties in preparation for fixed wing evacuation to unaffected areas for continuing medical care.) If transportation is scarce, responders may be required to prepare for extended casualty holding in the CCP.

[REPs are essentially the medical operations section of Disaster Support Areas. Not every DSA will have a medical function and not every REP will necessarily be located at a DSA.]

8. How long it takes the state to establish an operational REP.

9. How long it takes state and federal response agencies to deliver supplies, equipment, and personnel.

C. Designation and Siting Considerations

1. Local officials should designate two classes of CCPs. Class A CCPs are those which local officials are reasonably sure will be operational in the event of a major medical disaster. The locations of these CCPs may be publicized in advance of a disaster. Class B CCPs are those which may be made operational if circumstances warrant and resources are available. The location of Class B CCP's should not be publicized until they have been set up.

2. Local officials should designate locations within their counties as CCPs to be activated in case of a disaster. These site designations should be a joint effort involving County health, EMS, and general emergency services officials in coordination with appropriate city officials and private sector providers. In communities in which fire and/or law services will play a major role in the setup and operation of CCPs, representatives from these services should be involved in the planning effort.

The following should be considered when selecting possible CCP locations:

a. Proximity to hospitals to allow rapid staffing and supplying and transport of unstable patients requiring higher levels of medical care.

b. Proximity to areas which are most likely to have large numbers of casualties based on shaking intensity prediction maps, building patterns, and population distribution.

c. Proximity to hospitals which are expected to suffer major damage or be unable to treat the influx of arriving patients.

d. Accessibility for incoming casualties, staff and suppliers and casualty evacuation vehicles and aircraft. Evacuation by land

is preferred, but until land routes are restored, helicopters may be necessary. Refer to Appendix A - 1 for landing requirements for UH-1 and CH-47 helicopters.

[Ideally, disaster medical response and transportation restoration planners will jointly identify surface routes which should receive priority for restoration.]

e. Availability of facilities to protect casualties from inclement weather and to house off duty staff.

f. Availability of power and water.

D. Response System Design Options

Casualty Collection Point operations depend in large part on the organization of the overall disaster medical response. How a jurisdiction organizes entry into, movement within and discharge from its disaster medical care system will influence the demand for services at CCPs and hospitals.

The design of a local medical response system should be based on day to day operations while recognizing the large qualitative as well as quantitative differences in the response environment.

1. Access

Casualties will enter the medical care system in any way they can. Planning can influence behavior by facilitating system entry in a preferred manner. Emergency broadcasts, signs on the approaches to hospitals, and law enforcement personnel can help direct casualties to appropriate system entry points. However, all medical facilities should prepare for casualty convergence.

There are three principal design options for casualty access to CCPs.

a. Injury site to CCP - This path encourages the public to use CCPs as the entry point into the disaster medical care system. In order for this strategy to be effective, the public must have incentives to select CCPs over hospitals or other usually utilized health facilities. This approach may be advisable in areas in which hospitals are remote, structurally damaged and unusable or so overwhelmed they cannot accept any more patients.

Generally, however, this strategy is not recommended. CCPs will probably not be completely operational at the time of the initial rush of casualties immediately following a disaster. Additionally, communications with the public would be required to direct them to the appropriate site for medical care.

b. Staging Area or First Aid Station to CCP (or hospital) - This strategy employs an organized intermediate site for patient triage and initial care between the injury site and the CCP (or hospital). As with the strategy described above, this approach requires the creation of an ad hoc facility and notification of the public. Setting up staging areas or First Aid Stations near natural points of convergence (hospitals, clinics, etc.) may reduce the flow of casualties to those facilities and insure that only the most are serious are triaged to the hospital. Since FSAs will not be required to hold casualties for extended periods of time, their staffing and supply requirements allow for more rapid setup than for CCPs.

This strategy may be most appropriate in circumstances in which hospital capacity is available yet scarce and access to hospital or CCP medical care needs to be controlled.

c. Hospital to CCP - The third strategy is to use CCPs primarily for stable hospital patients who are to be evacuated from the immediate area. This strategy requires surviving hospital capacity sufficient to meet the initial rush of casualties. The strategy can also be combined with b above so that First Aid Stations act as gatekeepers for scarce hospital resources.

This strategy lends itself to selective evacuation via CCPs, e.g., medical patients who do not have life threatening conditions requiring immediate care but require ongoing surveillance or patients with specialized needs that may be in short supply in the impacted area.

2. Patient Disposition

Just as there are several models for patient access to CCPs and other sources of medical care, there are several disposition options available for patients at CCPs including evacuation to a number of sources of medical care.

a. CCP to Regional Evacuation Point - The movement of casualties from CCPs to REPs will most likely be initially by air. As ground routes become available, land transportation may become the transportation method of choice.

b. CCP to In-Area Hospital/Other Facility - If CCPs are the point of access of patients with life threatening conditions and there is sufficient surviving hospital capacity within the impacted area, those patients should be evacuated to nearby surviving hospitals.

c. Treatment and Discharge - Patients with minor injuries should be treated and released to shelters or their homes or recruited as volunteers at the CCP.

E. Pre-Event Inspection and Assignment of Responsibilities

1. Each site identified as appropriate for CCP operation should be inspected. (See Appendix 3 - A for sample inspection form).

The jurisdiction's disaster planners should develop a fact sheet on each possible location. This fact sheet should include a narrative description of the layout of the facility and a map labelling the most likely areas for helicopter operations, casualty intake, treatment, holding and staging, food preparation and serving, etc. The fact sheet should also note the holding capacity and shelter, utility, water, and other logistic support the site offers. The inspection should

involve the owner/manager of the selected site in the preparedness process.

2. The California National Guard has agreed to perform aerial site surveys of CCP sites selected by counties. These surveys are to identify impediments to air operations prior to a response.

VI. OPERATIONS

These guidelines emphasize the functions necessary for medical operations, but other CCP functions may be considered. These include staging for other response functions, such as search and rescue, and receipt and distribution medical resources. Additionally, CCPs must provide for the logistical support for all implemented functions.

[This section presents summary information on the operations of CCPs. More detailed information, including lists of medical supplies, suggested personnel and issues which should be considered, is included in the appendices.]

A. Medical Functions

1. Basic medical services to be provided at CCPs include:

    a. Casualty congregation and registration
    b. Triage
    c. Austere (life-saving) medical care
    d. Casualty holding
    e. Casualty evacuation

B. Medical Care

1. Types of Injuries

Injuries/health problems which may be presented at CCPs include:

a. Lacerations
b. Fractures
c. Shock
d. Burns
e. Hazardous substance contamination/exposure.
f. Cardiac emergency care
g. Respiratory emergencies
h. Childbirth, emergency
i. Genital-urinary emergencies
j. Eye emergencies
k. Chest injuries
l. Spinal injuries
m. Penetrating body injuries
n. Crush injuries
o. Psychological emergencies

2. Medical Services

Specific medical procedures include:

a. Triage
b. Wound Care
c. Control of bleeding
d. Treatment of shock
e. Fluid replacement
f. Splinting of fractures
g. Pain relief
h. Initial care of burns
i. Mental health

3. Medical Resources

Local government is responsible for the initial staffing and supply of CCPs. As the state and federal responses gear up, mutual aid resources from outside the affected area will be provided.

It is the policy of the EMS Authority to request medical personnel and equipment needed for the state response only from areas of the state unaffected by the disaster and only through the government representatives of the unaffected counties unless arranged through prior agreements.

a. Medical Supplies

(1) Types of Supplies

Recommended medical supplies for CCP operations are listed in Appendix 1 - B.

(2) Local supply sources

County plans should identify sources for initial acquisition of medical supplies and equipment. Suggested sources include:

(a) Pre-positioned material at CCP or other county location.

(b) County stored First Aid Stations.

(c) Local manufacturers and wholesalers.

(d) Other local stores (hospitals, pharmacies, emergency vehicles, etc.)

(3) State supply sources

The State will acquire materials from:

(a) Private sector suppliers in unaffected areas of California through OES and EMSA.

(b) Federal sources including Department of Health and Human Services, Department of Defense and Veterans Administration.

b. Medical Personnel

(1) Personnel Requirements

Casualty Collection Point operations are very labor intensive. Physicians and nurses are needed to triage, treat, and monitor the condition of casualties. Litter bearers are needed to move casualties between triage and treatment and holding areas as well as to staging areas for evacuation. Additionally, staff are needed for all the logistic support functions.

See Appendix I.C. for sample job descriptions and organizational chart.

(2) Suggested sources of medical personnel to staff CCP functions include:

(a) Local EMS Personnel, including law enforcement and fire EMTs, if available.

(b) Local National Disaster Medical System (NDMS) Disaster Medical Assistance Teams.

The National Disaster Medical System has created a group called a Disaster Medical Assistance Team (DMAT) to perform essentially the medical functions required at CCP. The DMATs consist of 29 medical and medical support personnel with a capability of holding approximately 80 patients for 24 hours. Three teams, combined with command, support and food service staff, create a 103 person unit capable of caring for 250 casualties per day. The unit/team configurations assume two twelve hour shifts.

(c) Locally reassigned physicians and nurses.

(d) Volunteer physicians, nurses, and other medical personnel.

The state will obtain medical personnel from:

(f) State Military

(g) Volunteers through professional societies (CMA, CNA, etc.)

(h) Medical school residents and teaching staff

(i) Federal Military

(j) Other state departments if personnel available (California Conservation Corps, California Department of Forestry, etc.)

C. Resource Staging Functions

Casualty Collection Points may also serve as staging areas for the receipt of medical personnel and resources provided by state and federal response agencies. These medical response resources may be used for CCP operations only or for support of the overall medical response. If a CCP is to be used as a resource staging area, it should have two landing sites; one for casualty evacuation and one for resource staging. See Appendix 1 - A for additional information on helicopter operations.

D. Operations Staging Functions

CCPs may also serve as staging areas for search, rescue, and medical operations in nearby areas. Because of the amount of medical and logistic support concentrated at CCPs, they can serve as a base of operations for

search and rescue teams. Their proximity to the directly impacted area allows for reduced supply lines to the field and reduced casualty transport distances.

E. Human Services Support

Human services support functions are the functions required to sustain the physical and mental health of staff and casualties.

1. Sanitation including sanitary facilities

Sanitation facilities will need to be established for solid and liquid human waste disposal and handwashing.

2. Food and water

Food and water will need to be provided for casualties and staff. Water will be especially critical if normal supplies are interrupted by the disaster. The lack of water will critically limit the ability of CCPs to function. A minimum of 2 U.S. quarts of water per person per day are required by each person for drinking and cooking purposes.

3. Shelter

If weather is inclement or night time temperatures low, casualties will need to be sheltered. In any event, casualties should be adequately protected from heat loss through the ground and/or floors of the CCP. CCPs will require an estimated 60 square feet per litter patient just for holding operations.

4. Child Care

Children are often heavily impacted by disasters. Staff are needed to watch over uninjured children, ensure they are moved to shelters if appropriate or kept from harm at the CCP.

5. Social Services and Mental Health

Although the principal purpose of a CCP is the delivery of medical care, social service and mental health workers can make a substantial contribution. They should be able to provide crisis intervention services and make referrals to shelters and victim assistance programs. They should also be able to reassure the family and friends of casualties remaining at the CCP.

7. Welfare and Inquiry Services

The Welfare and Inquiry function will create a casualty roster and record the destination for each evacuated or discharged casualty. This information will be forwarded to county welfare and inquiry officials.

F. Direction and Control, Setup and Logistical Support

1. Direction and Control

As with any large medical operation, CCPs will need both administrative and medical direction and control.

2. Setup

Casualty Collection Point setup is one of the few aspects of CCP operations that can be planned in detail. The county health officer should designate a person (and backup) to coordinate the setup and initial operation of each CCP. This person or designee should identify the manager of the facility which will serve as a CCP and identify the initial medical and logistic support staff needed to make the CCP operational.

3. Security/Safety

Law enforcement should establish a perimeter around the CCP to control access and entry. It is especially important to control entry to helicopter operating areas and controlled substance storage areas.

The CCP should have a designated safety officer. This person should minimize hazards around the facility and establish warnings for hazards which cannot be mitigated.

4. Signs/Maps/Layouts

Most of the workers at the CCP will not have participated in drills or exercises there. CCPs should therefore have maps and signs prepared to assist workers movements.

5. Logistical Support

a. Registration/Record keeping

Registration and Record Keeping should establish a record for all CCP workers.

b. Communications

External - The external communications function should ensure contact with county medical or general emergency services operations. It is through this link that the CCP will request augmentation of supply and personnel resources and report status and evacuation needs to county officials.

Internal - The internal communication function ensures communication between and among the various functions within the CCP. Handy-talkies work well. If they are unavailable, runners should be employed.

c. Helicopter Operations coordination and control

See Appendix 1 - A for additional information on helicopter operations.

d. Non-medical equipment and supplies

The logistic support demands on a CCP operation are considerable. CCPs will need to maintain stocks of non-medical items such as blankets, food, water and perhaps fuel for vehicles and generators, batteries for radios, sleeping bags, rope, tape, etc.

e. Inventory maintenance

The CCP manager will need to assign staff to manage the inventories of both medical and nonmedical resources. This staff should be experienced in inventory control to ensure timely ordering of critical materials.

f. Power/Utilities

If the disaster interrupts electrical and natural gas utilities, the CCP may need to operate on generator power. Technicians will be needed who can install and maintain generating capability. In addition, the CCP will need fuel for generator operations and, if weather is cold enough, portable heaters to maintain a safe temperature.

g. Public Information/Media

The CCP may have to interact with media as they report on the response to the disaster. A PIO function will help to ensure minimal disruption of critical activities while assisting the media to obtain the information they need.

h. Volunteer coordination

The volunteer coordinator will recruit skilled and unskilled workers for CCP tasks. Volunteers will need to be registered as Disaster Service Workers, oriented to CCP layout and operations, and assigned tasks and work schedules.

G. Transportation and Casualty Evacuation

CCPs will be the locus for tremendous traffic flow. Ground vehicles and aircraft will leave and arrive almost continuously bringing in casualties, relief personnel, supplies and equipment and leaving with evacuees and mutual aid resources. Managing this traffic flow will be extremely important not only to ensure the smooth flow of vehicles, but also to minimize the risk of accidents.

1. Ground Transportation Operations

a. Emergency Vehicles

If possible, emergency and non-emergency vehicles should be routed differently in and around the CCP. A traffic control officer and staff should be available to guide arriving vehicles to their destinations and to route non-emergency traffic to alternative routes. The traffic control function must also be prepared to route private automobiles carrying

casualties to the appropriate destination.

b. Other Vehicles

Non-emergency vehicles also need to be met and routed to their destinations.

2. Air Operations

Air operations are extremely important in planning for CCPs. If the road system is disrupted by an earthquake or ground transportation if unavailable, the CCP will rely heavily on helicopter aircraft for patient movement and resource resupply. Planning for helicopter operations is very important both to ensure the rapid movement of patients and resources and to minimize the risk of accidents. (See Appendix 1 - A for more information on air operations).

F. CCP Shutdown

At the end of the response or when no longer needed, the CCP Manager should systematically shut down the operation. This will involve inventorying remaining equipment, supplies and pharmaceuticals; arranging for their storage or safe disposal; disposing of remaining waste products; and, reconciling patient, staff, and financial records.