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Mobile Triage Team in a Community Disaster Plan

Charles J. Fisher, Jr, MD
Sacramento, California

Experience has shown poor predisaster planning, inadequate communication and the absence of an on-scene commander to be common and recurring problems during disaster rescue efforts. A mobile on-scene triage team (MOTT) operating in Sacramento has demonstrated the following advantages: immediate access; mobility, coordinated evacuation, treatment, and disposition of mass casualty victims; control of facility overload, and appropriate initial disposition to definitive care facilities. The advantages realized with this approach arise from greater community awareness and participation in a coordinated plan for medical care in disasters.

Fisher CJ Jr Mobile triage team in a community disaster plan *JACEP* 6:10-12 January 1977 *disaster planning community*

INTRODUCTION

Mass casualty accidents are no longer a fear of the future, but are occurring with frightening regularity Mass air transit via DC 10s, 747s and L-1011s, as well as rapid transit by rail are frequent contributors to the mass casualty problem Tornadoes, fires, hurricanes, floods, and other natural disasters play a significant role as do sabotage and civil disturbances

In Florida, the crash of an L-1011 into the Everglades demonstrated the need for adequate communication, air transportation and an on-scene commander In California an earthquake proved that ground line communication and ground transportation are fallible

These experiences illustrate that poor predisaster planning, inadequate or nonexistent communication, and the absence of an on scene commander are major recurrent problems during disaster rescue efforts

SACRAMENTO EXPERIENCE

Recently in Sacramento, California, a jet plane crashed into an ice cream parlor occupied by children attending a birthday party, a 50-passenger high-speed bus crashed into a bridge abutment, and a knife and gun fight followed a large rock concert.

Each of these events yielded mass casualties and a massive influx of patients to local hospitals. Communications during each incident failed to provide adequate information to the hospitals regarding number, type and severity of injuries, or even forewarning of arrival

For example, the Sacramento Medical Center was acutely overloaded with 20 patients requiring immediate surgery, while other hospitals capable of handling these problems received none Burn patients were sent to other hospitals only to be transferred to the University Burn Unit

ORGANIZATION

A critique of these disasters with county health officials made it obvious that an individualistic approach to disaster planning was inadequate Sacramento County health and general services officials metropolitan airport personnel, emergency physicians, administrators from private hospitals, and faculty from the University hospital worked together to develop a plan to maximize resources, expedite patient transportation to definitive care facilities, and minimize hospital overload Initially, this plan was developed for the Sacramento County Metropolitan Airport It has now been incorporated as

From the Section of Emergency Medicine, Department of Internal Medicine, University of California, Davis School of Medicine, Sacramento Medical Center

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Address for reprints Charles J Fisher, Jr, MD, Assistant Professor and Director, Section of Critical Care - Emergency Medicine, Sacramento Medical Center, 2315 Stockton Boulevard, Sacramento, California 95817

part of the county disaster plan for *any major* incident, including a nuclear power plant accident.

According to the disaster plan, a mobile on-scene triage team (MOTT) triages casualties, coordinates communication via the Hospital Emergency Administrative Radio (HEAR) network, and oversees casualty evacuation to specific hospital facilities. The MOTT is composed of a senior emergency physician, a resident, a registered nurse, and/or a nurse's aid or emergency medical technician. The MOTT is based at the University hospital which serves as the control hospital.

The University hospital has 24-hour faculty/staff and house staff physician coverage that makes it capable of responding with a MOTT within two minutes of notification. The Sacramento County communication center is responsible for dispatching all ambulances and public safety agencies (fire, police), communicating with all hospitals via the HEAR radio network, and acting as the nerve center for the disaster plan. The emergency physicians involved are a well-trained, well-organized group that staffs the surrounding community hospital emergency departments 24 hours a day.

Through cooperative effort, the plan has defined which hospitals are most capable of handling specific problems, such as cardiothoracic, neurosurgical, and burn. In addition, the University hospital communication center maintains current data on bed and blood availability. This information is posted on a wall chart in the University hospital disaster control room. A copy is given to the triage officer (senior emergency physician) on duty (Figure 1) so he can make intelligent, initial triage decisions in the field even if communications are temporarily interrupted.

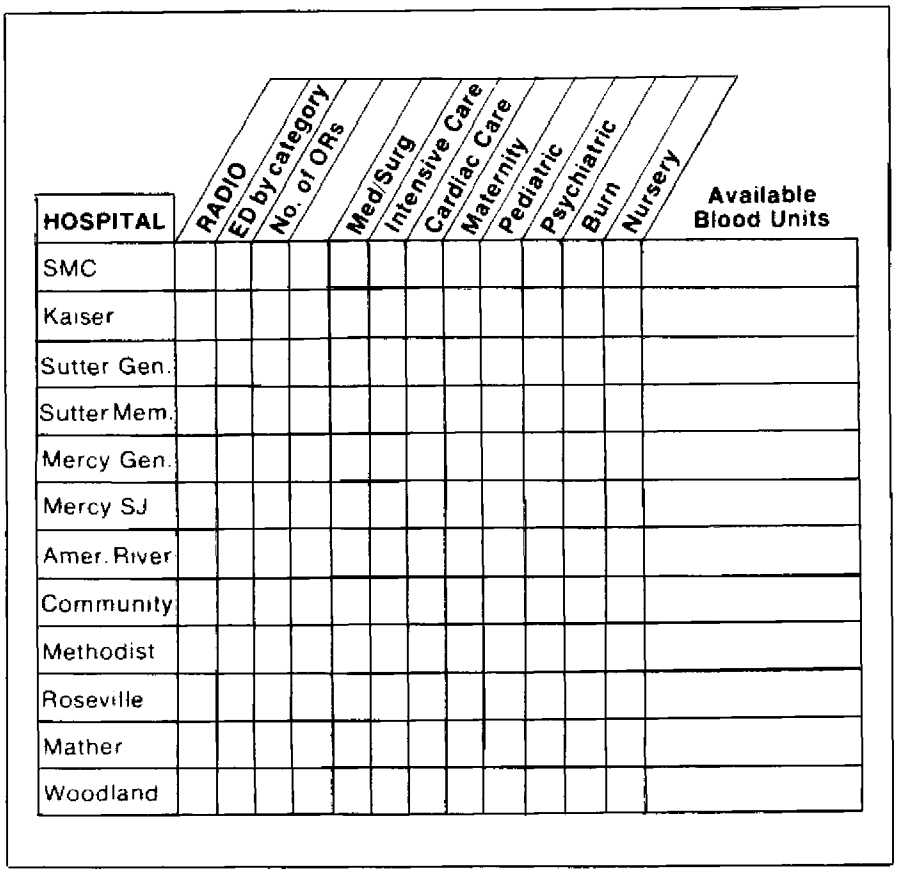

Fig. 1. *Daily data form for community resources and emergency care capabilities.*

STANDARD OPERATING PROCEDURE FOR MOTT

A standard operating procedure for MOTT has been developed (Figure 2) and distributed to appropriate members of the disaster team.

1) Call is received in the control hospital (University of California, Davis-Sacramento Medical Center) emergency department requesting MOTT.

2) Appropriate information is gathered and decision is made whether to dispatch MOTT.

3) MOTT meets at the ambulance bay and commandeers ambulance. If no ambulance is present or conditions require helicopter transportation, these are dispatched via county communication (an alternative ground transportation system is being planned).

4) While triage team is enroute, inhouse triage team (ITT) prepares for arrival of disaster victims.

5) Control hospital medical coordinator (CMC) in disaster control room verifies that data collected in the past 24 hours from community hospitals regarding number of available beds, blood, etc, is correct.

6) County communication notifies all hospital emergency departments of disaster alert by HEAR radio network.

7) Hospitals switch radios to emergency (open) mode. At this point, only disaster-related communications are to be transmitted.

8) County communications vehicle is dispatched to scene.

9) Upon arrival at the disaster site, MOTT, lead by the on-scene medical coordinator (senior emergency physician)

a. establishes triage site

b. starts triaging patients into four categories:

1. Priority 1 (RED) — salvagable; transport immediately

2. Priority 2 (YELLOW) — salvagable; transport as soon as possible

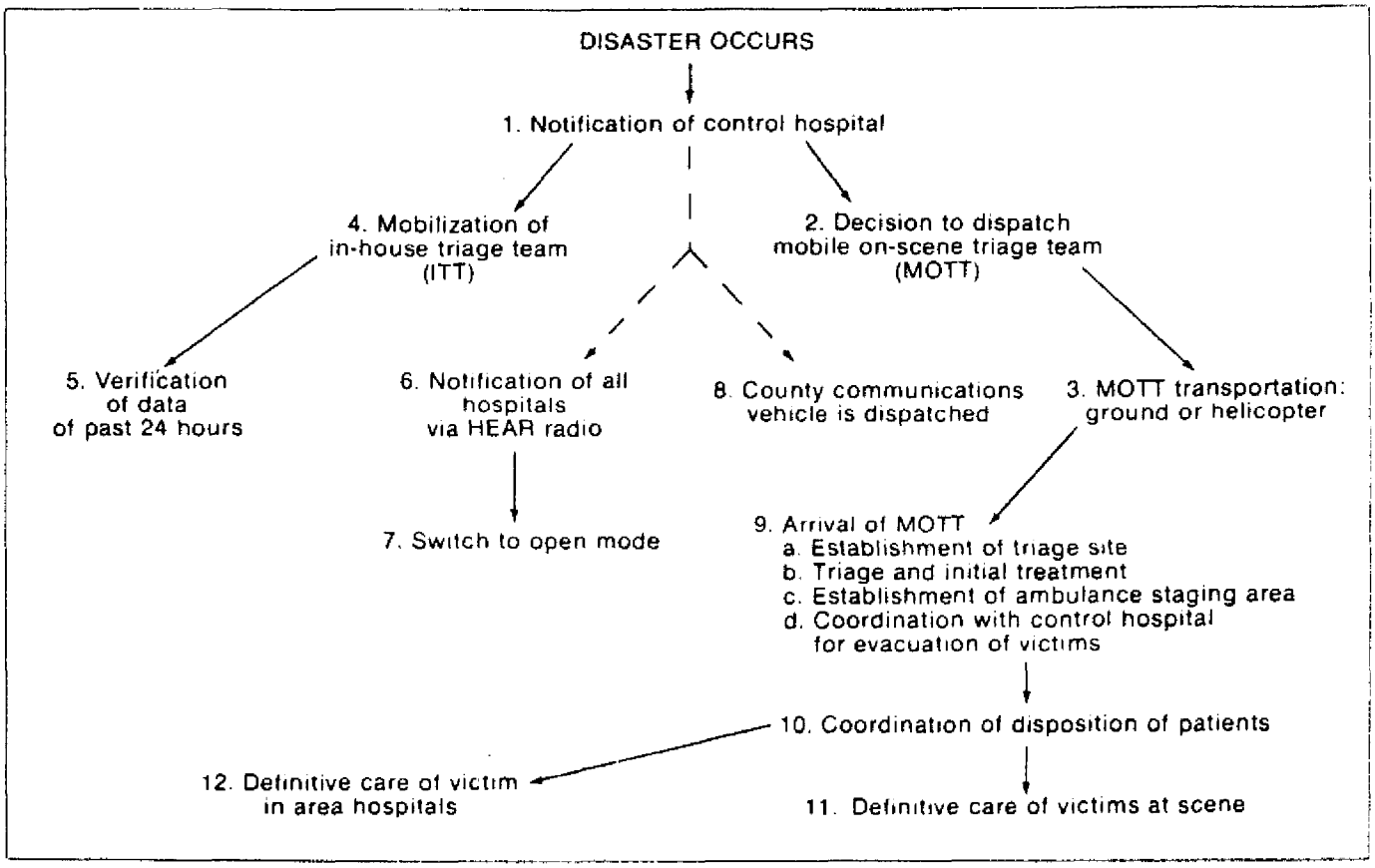

Fig. 2. *Standard operating procedure for MOTT.*

3. Priority 3 (GREEN) — walking wounded; transport when possible

4. Priority 4 (BLACK) — dead or death imminent

c. under direction of on-scene medical coordinator (OMC) and ambulance coordinator establishes an ambulance staging area

d. uses open mode radio for OMC to relay basic information to CMC regarding the number of disaster victims and types of injuries.

10) CMC advises of bed availability and coordinates evacuation of victims to area hospitals. If the number of victims is very large, Red Cross and county communication will assist in establishing an on-scene treatment area while additional medical teams are being dispatched.

11) Once initial triage is completed, definitive care is initiated while victims await evacuation.

12) Definitive care of victims is provided in area hospitals.

DISCUSSION

Abelson and Starr[1,2] in New York have developed a mobile inflatable treatment unit (MITU) which is patterned after the now-famous mobile army surgical hospitals (MASH) used extensively in southeast Asia. There is a great deal of merit to use of the MITU, particularly in the easily accessible, limited geographic area of Kennedy International Airport. However, the size of the vehicle (46 × 10) makes it an unwieldy rapid responder to remote areas. In such instances, the advantages of a triage team with high mobility, and the ability to coordinate communication and evacuation, is of major importance. Once developed, the MOTT can be adapted to virtually any disaster situation, be it a tanker-bus-auto crash in the fog (as recently happened in Sacramento), a passenger plane crash, or a nuclear power plant melt-down with release of airborne radioactive material.

Since this article was written, the author has become aware of a similar triage approach to community disaster. Gierson ED, Richman LS: Valley triage: an approach to mass casualty care. *J Trauma* 15:193-196, 1975.

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