

Leadership as a Component of Crowd Control in a Hospital Dealing with a Mass-Casualty Incident: Lessons Learned from the October 2000 Riots in Nazareth

Moshe Pinkert, MD, MHA;¹ Yuval Bloch, MD, MHA;² Dagan Schwartz, MD;^{2,3} Isaac Ashkenazi, MD, MSc, MPA;² Bishara Nakhleh, MD;⁴ Barhoum Massad, MD;⁵ Michal Peres RN, MHA;¹ Yaron Bar-Dayan, MD, MHA¹

1. Israel Defense Forces Home Front Command Medical Department
2. Faculty of Health Sciences, Ben Gurion University, Beer-Sheva, Israel
3. Magen David Adom, Medical Division
4. General Manager, Nazareth English Hospital, Nazareth, Israel
5. General Manager, Nazareth Italian Hospital, Nazareth, Israel

Correspondence:

Col. Dr. Y. Bar-Dayan, MD, MHA
Chief Medical Officer
IDF Home Front Command,
16 Dolev St. Neve Savion
Or-Yehuda, Israel
E-mail: bardayan@netvision.net.il

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EMS = emergency medical services
MCI = mass-casualty incident

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Abstract

Introduction: Crowd control is essential to the handling of mass-casualty incidents (MCIs). This is the task of the police at the site of the incident. For a hospital, responsibility falls on its security forces, with the police assuming an auxiliary role. Crowd control is difficult, especially when the casualties are due to riots involving clashes between rioters and police. This study uses data regarding the October 2000 riots in Nazareth to draw lessons about the determinants of crowd control on the scene and in hospitals.

Methods: Data collected from formal debriefings were processed to identify the specifics of a MCI due to massive riots. The transport of patients to the hospital and the behavior of their families were considered. The actions taken by the Hospital Manager to control crowds on the hospital premises also were analyzed.

Results: During 10 days of riots (01–10 October 2000), 160 casualties, including 10 severely wounded, were evacuated to the Nazareth Italian Hospital. The Nazareth English Hospital received 132 injured patients, including one critically wounded, nine severely wounded, 26 moderately injured, and 96 mildly injured. All victims were evacuated from the scene by private vehicles and were accompanied by numerous family members. This obstructed access to hospitals and hampered the care of the casualties in the emergency department. The hospital staff was unable to perform triage at the emergency department's entrance and to assign the wounded to immediate treatment areas or waiting areas. All of the wounded were taken by their families directly into the "immediate care" location where a great effort was made to prioritize the severely injured. In order to control the events, the hospital's managers enlisted prominent individuals within the crowds to aid with control. At one point, the mayor was enlisted to successfully achieve crowd control.

Conclusions: During riots, city, community, and even makeshift leaders within a crowd can play a pivotal role in helping hospital management control crowds. It may be advisable to train medical teams and hospital management to recognize potential leaders, and gain their cooperation in such an event. To optimize such cooperation, community leaders also should be acquainted with the roles of public health agencies and emergency services systems.

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Introduction

Crowd control is essential in mass-casualty incidents (MCIs). It is indispensable for the professional, efficient, and timely treatment of the casualties.^{1,2}

The police are responsible for maintaining order at the scene and en route to the hospital. Hospital security, aided by the police, is in charge of maintaining crowd control within the hospital. Hospital security roles include securing the access to the emergency department entrance, preventing the unnecessary gathering of anxious family members and crowds, directing hos-

pital personnel and representatives of external rescue teams, and operating the hospital's helicopter landing pad.³

Crowd control becomes more difficult when an incident is caused by riots. In October 2000, Arab-Israeli citizens began violent riots in several locations throughout the country during an event known as "the October riots". The riots occurred in a wide range of distances from the hospitals of Nazareth, ranging between several minutes to one-hour driving distance.^{4,5} The riots lasted for 10 straight days and were accompanied by stone throwing, arson using Molotov bottles, and fierce demonstrations that blocked many main roads. The police suppressed the riots by using all means at hand, in some cases including live ammunition. Thus, the distrust between the involved Arab-Israeli population and the police worsened, preventing the latter from maintaining order at the scene of the events and within the hospital compounds.⁵ This study focuses on the events in and around the city of Nazareth, a city with an Arab-Israeli minority. There are two Level-3 trauma hospitals within the city limits: the Nazareth English Hospital and the Nazareth Italian Hospital. The closest Level-1 trauma center is located within a 30-minute drive in the city of Haifa.

This paper describes the role of local leadership in crowd control at and in the vicinity of the hospital compounds during the October 2000 events, and outlines recommendations for collaboration between local leaders and emergency managers. During the riots, there were many incidents in which a relatively small number of mildly wounded were evacuated to the two hospitals. In two instances on the second and eighth days of the riots, a larger number of wounded were cared for, including several severely and fatally injured victims.

Methods

Data were collected from formal debriefings that were conducted by the management of the hospitals of the Nazareth English Hospital⁶ and the Nazareth Italian Hospital.⁷ Data were collected using a retrospective evaluation done by a focus group, conducting multiple examinations for common problems, using written, audio, and video records recorded on site.⁵

Information was obtained regarding the number of casualties arriving at the hospitals, their medical condition, and their accumulation in the emergency departments.

Data also were collected and analyzed to characterize an incident caused by massive riots. Focus groups were conducted to obtain information concerning problems in the evacuation and provision of prehospital care of the victims,⁵ in the behavior of families of the patients, and in the role-performance of officials in and around the hospital.

Special emphasis was placed on examining the actions taken by the hospital managers to maintain crowd control within the hospital grounds.

The security arrangements in this event are compared to those recommended by the Ministry of Health MCI Doctrine.³

Results

At the Scene

Israeli national EMS, as well as local private ambulance crews and vehicles, could not approach the scene and all of the patients were evacuated by non-designated vehicles and personnel, without any prehospital triage or treatment. Due to the nature of this evacuation, patients arrived to the hospital while in great distress, usually with their families and many escorts. Routes or entrances to the hospital were blocked. The police were busy suppressing the riots and could not send forces to secure the perimeters and access to the hospitals. Additionally, due to the heightened tension between local population and police, it is not clear whether such a move would have been beneficial.

At the Hospital

The Nazareth Hospitals are both small, Level-C trauma centers, with one entrance leading to the emergency department and without specialty services such as neurosurgery or cardiothoracic surgery. Therefore, severe trauma cases are stabilized and then transferred to a Level-A trauma center to get definitive treatment. During and around the two incidents from which heavy patient loads arrived to the hospitals, the emergency department entrance, the reception, and the emergency department itself were overcrowded with casualties and family members. Performing effective triage and providing initial care was impossible. Hospital security was unable to control the crowd. The medical staff could not effectively treat the casualties according to the MCI Protocol. A comparison between the patient triage and care according to the MCI Protocol and the patient triage and care actually provided at the Nazareth English Hospital is shown in Figures 1a and 1b, respectively. Most casualties were taken by their families directly into the "immediate care" location, where a great effort was made by hospital personnel to identify and treat the severely injured, while clearing the mildly wounded and sending them to a mild casualty treatment area.

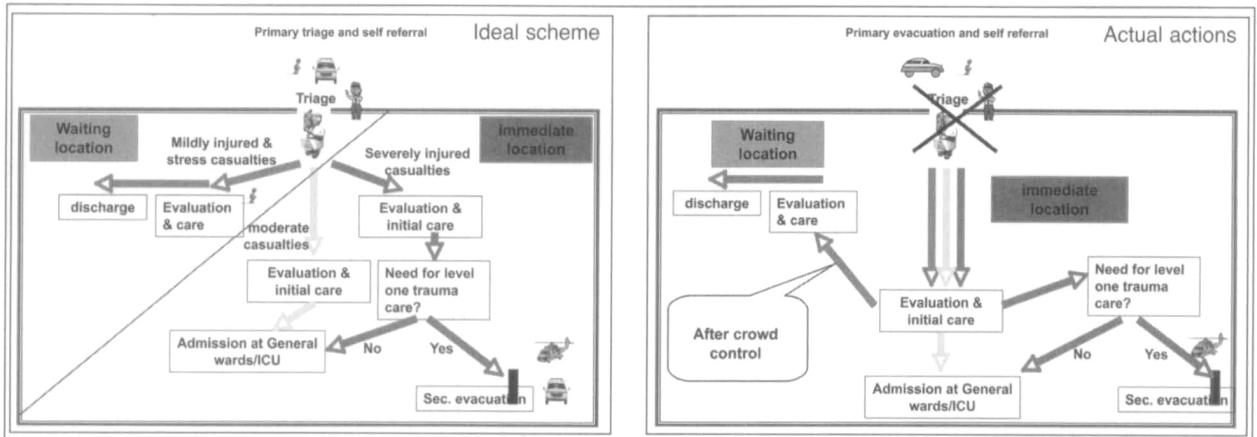
Table 1 specifies procedures that might have been influenced by the disorder at the scene and in the medical center.

Injuries and Work Load

The Nazareth Italian Hospital and the Nazareth English hospital treated a total of 160 and 132 (respectively) riot-related patients during the 10-day period. At the English Hospital, one patient was described as "critical", nine "severely wounded", and 26 "moderately injured" (Table 2). The biggest burden on the emergency department staff occurred on 08 October at 23:00 hours (h). In less than one hour, two private vehicles arrived carrying eight casualties, including one critically injured with a head trauma, three severely injured, all with gunshot wounds to the chest, and four moderately wounded. The three severely injured underwent thoracotomy and were stabilized. Then, they were transferred, along with the critically injured patient to "Rambam" Hospital, a Level-1 trauma center (Figure 2b).

Additional Chaos

Due to the nature of the event and the mistrust between the public and the authorities, many patients provided false



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Figures 1a and 1b—Comparison between the patient triage and care by the mass-casualty incident (MCI) protocol and the patient triage and care at the Nazareth English Hospital (ICU = intensive care unit)

Scene of the MCI	Medical Center
<ul style="list-style-type: none"> -Ensuring the safety of emergency forces -Ensuring the safety of casualties and bystanders -Clearing the arrival and evacuation axis -Locating all casualties -Rapid life-saving procedures -Triage and evacuation -Inter-organizational collaboration and communication 	<ul style="list-style-type: none"> -Ensuring the safety staff, casualties and other patients. -Triage -Definitive medical treatment -Judicious use of resources -Preparing casualties for secondary distribution -Identification of fatalities and unconscious patients

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Table 1—Description of chaos-sensitive functions in the mass-casualty incident (MCI) management

Date	Time of Arrival	Mild	Moderate	Severe	Critical	Total
01 October 2000	14:18–00:30	30	6	0	0	36
02 October 2000	13:00–20:47	28	13	6	0	47
08 October 2000*	20:30–23:00	31	4	3	1	39
09 October 2000	All Day	7	3	0	0	10
Total	--	96	26	9	1	132

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Table 2—Number of casualties and time of arrival, Nazareth English Hospital

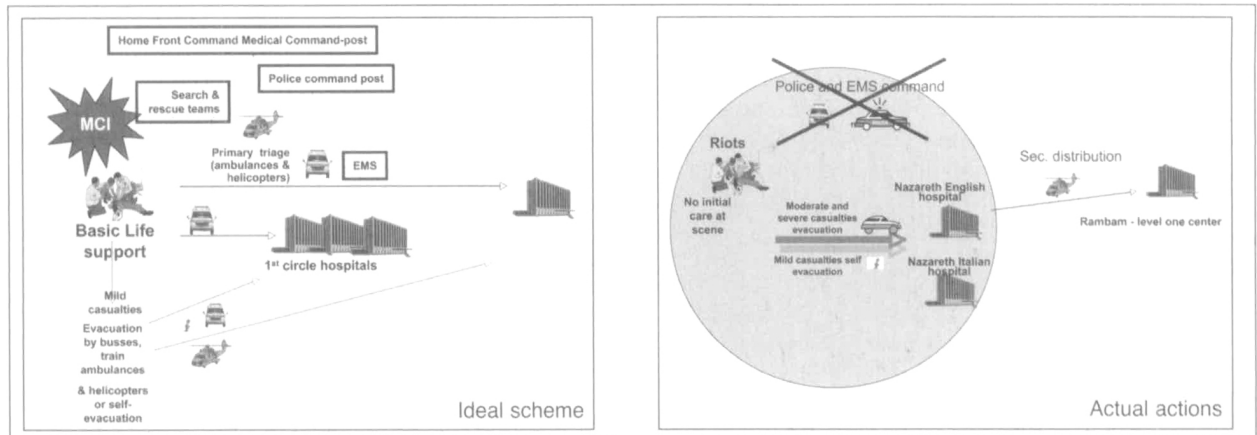
*On 08 October 2000: one critical, three severe, and four moderate patients were all admitted at 23:00 h, at the same time, 31 mildly injured patients that were admitted earlier

names and details or refused to give any details to the hospital personnel. As a result, operating an Information and Registration Center to provide information to the families became impossible.

Using Local Leadership

To try to control the event, the hospital staff enlisted “prominent-appearing” figures from the crowd and gained their cooperation to help control the crowd and allow for orderly triage and treatment of the victims. This approach

was successful in most instances. At times, city officials and other community leaders were enlisted successfully. During the evening of the eighth day of the riots, when the patient and crowd load was the highest and crowd control using leaders from within the crowd was unsuccessful, the city mayor, who had come to the hospitals, was approached. Crowd control was achieved only after this intervention. This included vacating the emergency department’s entrance, opening access ways, and vacating relatives and curious bystanders from hospital grounds.



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Figures 2a and 2b—Comparison between the interactions between the responders by the mass-casualty incident (MCI) doctrine and the interactions between the responders in this event (according to “Disastrous Incidents Systematic Analysis Through Components, Interactions & Results”—DISAST-CIR methodology⁹). (EMS = emergency medical services; Sec. = secondary)

Discussion

Every town in Israel has disaster plans for disaster management for different types of disasters. Primary distribution of patients by the emergency medical services (EMS) between the local hospitals is one of the basic principles of these plans. These plans are tested with drills and applied in numerous, real-life terrorist events in Israel. Riots have a unique characteristic because most of the casualties have been evacuated by private cars, and the disaster plans could not be conducted “by the book” as was expected. Actual interactions between responders are compared to the recommendations of the MCI doctrine in Figures 1a and 1b.

Every hospital in Israel, including the Nazareth Hospitals, has disaster plans that are tested by a drill every year. Hospital disaster plans are different for different types of disasters. The disaster plans are reassessed every year according to the lessons learned from the drills and after every real-life event in which the hospital takes part. Lessons learned from drills and real-life events are used to update the National Doctrine, which then is communicated to all the hospitals in Israel. Mass-casualty incidents during riots are rare in Israel. Therefore, the differences between the ideal scheme and the actual actions taken during these events were larger than usual in the case of a terrorist attacks in Israel, and the lessons learned from these events were studied and embedded into the hospitals’ disaster plans. The October 2000 events, and especially the effects of the chaos on medical treatment, illustrate the need for a controlled and even an isolated hospital environment for effective MCI management. Lack of crowd control hinders EMS and hospital rescue efforts.⁸ When dealing with a small event, hospital security usually is able to control the crowd.³ In larger events, the achievement of crowd control in the hospital requires police assistance. Another recommendation to isolate the hospital from chaos at the scene is the prioritized and rational evacuation of casualties, as managed by the EMS. The ability to control the hospital entrance is in reverse proportion to the number of self-evacuated victims.³

In some cases, the police have been unable to maintain crowd control. This may be due to inadequate resources, as in a major disaster such as an earthquake or large terrorist attack, or the conflict between police and the local population. Such conflicts occur worldwide in ethnic or religiously motivated riots, inmate riots, and sometimes in violent union protests.

Local leaders, both official and circumstantial can be a powerful resource in the maintenance of crowd control during a MCI, especially in large-scale disasters and anti-government riots. They can act as mediators between the crowd and health officials and transfer information bilaterally. Moreover, their very presence may help calm the chaos.

Recommendations for Action before the Event (Contingency Planning)

1. Hospital security must be trained in managing crowds during riots;
2. Local leaders should be identified in close groups, such as inmates, sports fans, and religious groups;
3. Train local leaders for emergency management;
4. Include local leaders in drills and training programs;
5. The interface between local leaders and hospital security teams should be determined; and
6. Establish routes of communication (e.g., pagers).

Recommendations for Action during the Event

1. Local leaders should be identified (if not done before);
2. Encourage local leaders to cooperate with MCI managers;
3. Bring the leader to the scene (or to the hospital, wherever there is a need);
4. Establish routes of communication with the MCI manager (e.g., radio);
5. Establish routes of communication with the public (e.g., bullhorn, local media); and
6. Include local leaders in the Emergency Operations Center (EOC).

Conclusions

The October 2000 events proved that local leaders can be a priceless resource during certain types of events. They should be acquainted with the role of public health and emergency services systems in emergency situations to assist and ensure their coordinated response to public health threats. Medical forces at the scene and in the hos-

pital's staff, mainly the hospital manager, also should be made aware of the leaders' ability to bring order to the scene, thus improving the management of MCIs.

Moreover, leaders should learn the role of public health and emergency services systems in emergency situations to assist and ensure their coordinated responses to public health threats, when needed.

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Role of Leadership in Disaster Management and Crowd Control

Ahmed Ammar, MBCHB, DMSc, FICS, FACS

Editorial Board Member, WADEM Board of Directors Member, Professor and Consultant Neurosurgeon, King Fahd Military Medical Complex, Dhahran, Saudi Arabia

Correspondence:

E-mail: ahmed@ahmedammar.com

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Introduction

I congratulate the authors for highlighting the role of leadership as a component in crowd control. I believe that the role of leadership in crowd control is essential. Crowd control is a vital part of any disaster management program. The crowd may easily disrupt different procedures of rescue victims and may prevent help from reaching them. It is important to understand the crowd psychology and behavior in order to learn how to control such crowds. Crowd psychology and behavior should be part of disaster management courses. The role and responsibilities of crowd control leadership in disaster management should be included in the disaster management courses.

Crowd Psychology and Behavior

Crowd psychology and behavior have been studied for decades. However, the controversy so far is about the moving factors and ways to control a crowd. The principle of Sigmund Freud's theory about crowd behavior is that people who are in the crowd act differently toward people than those who think individually. The danger is that according to this theory, a person may follow others' behaviors and become less aware about the true nature of their action. Le Bon, who was considered as the founder of crowd psychology, did not agree completely with Freud. Le Bon's theory indicated that crowds foster anonymity and sometimes generate emotions. He did not consider crowds as totally irrational. Theodor Adorno criticized the belief in spontaneity of the masses. According to Adorno, the masses were an artificial product of administrated modern life. Edward Bernays, the nephew of Sigmund Freud, was one of the first to study the manipulation of the public using the psychology of subconscious. Many of Freud's followers would criticize Le Bon's concept of collective soul or collective unconscious, as the crowd has no soul of its own. The convergence theory follows this notion to consider that the crowd behavior is not a product of the crowd itself, but is carried into the crowd by particular individuals.^{1,2}

Ralph Turner and Lewis Killian developed the Emergent-Norm Theory of crowd dynamics. They stated that people in a crowd make their own rules as they go along. Crowd behavior never is entirely predictable. The Emergent-Norm Theory clearly shows that people in a crowd take on different roles, some as leaders, others as followers, and some as inactive bystanders or opponents. According to this theory, every one plays a significant role in determining the crowd behaviors.³

Mass-causality incidents and disasters, by definition, include a large number of victims who may be physically injured and/or psychologically disrupted. It is not unusual that these unfortunate groups of victims become hysterical or panicked. The event may attract a crowd from surrounding areas. These people gather for help, curiosity, or other reasons, forming a larger crowd. Therefore, controlling and isolating the disaster zone is a cornerstone in any rescue operation. The disaster management planner and teams know these facts well—they should be trained and prepared to control such situations when they may have to face anxious, angry, or panicked crowds during the different stages of disaster management.

Leadership

One of the main elements used to control irrational crowds is the leadership provided. It should be considered as a part of the disaster management team. These leaders should understand the crowd's psychology and behavior. The task of these leaders is simple and should be clear in their mind. They work only for one aim, which is to calm and assure the crowd in order to make space for the rest of the team to do their best to save the lives and offer necessary help to those involved. It is important to consider the cooperation of different organizations and groups in disaster preparedness programs.⁴

The question of whether leadership is a gift or skill has been considered for long time. The definition of a leader also is varied between one who inspires others or one who guides, leads, or controls others. Some modern psychologists think that leadership, in certain cases, is a gift that can be enhanced or masked due to different circumstances. Others believe that leadership is a skill and science that can be taught.

Conclusions

Hospitals, institutes, and organizations disaster should consider cooperating with one another when preparing for disasters. This cooperation should take the form of regular meetings and consultations. These meetings should familiarize the healthcare planners with the leaders of these groups, so they can ask for their assistance when needed.

The disaster management training courses should include special lectures or courses about:

1. Crowd psychology and behavior; and
2. Leadership courses.

In today's world, I believe the religious leaders have serious responsibilities and duties. They should show their followers the peaceful message of their religion to prevent the sick-minded extremists from twisting facts and using the religion for their own political and evil agenda. The paper by Pinkert and his colleagues demonstrated what religious leaders can do in order to calm and control a crowd, and how they were successful in preventing the serious consequences of such crowds.

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