

OPERATIONS AND PLANNING IN MULTIPLE CASUALTY INCIDENTS

Ronald M. Holloway

Emergency Care Institute of Beekman Downtown Hospital, New York City

INTRODUCTION

Those who reflect even for a moment on the title of this article may wonder why operations would precede planning. One normally prefers to have a plan before taking action. This is certainly true with the kind of action necessary to cope with a multiple casualty incident (MCI). On the other hand, MCI operations are not easy to plan without experience, and therefore operational experience becomes probably the single most important planning factor in eventually developing an effective MCI response.

THE NEED FOR A MEDICALLY ORIENTED PLAN

Obviously, one has to have a basic plan. The objective of this plan should not change, and should be to provide currently achievable and necessary medical care promptly at the scene, and to remove patients expeditiously to a hospital(s) that has the resources and capability to care for the patients – this removal either to be direct or following secondary transfer.

Basic to this objective must be a realization that an MCI is or certainly should be an event requiring a *medically* dictated response. The best medical care under the circumstances is *the* primary requirement, and it is this that

must be emphasized, rather than the quickest response, fastest transportation, or most sophisticated communications system. To a greater or lesser degree, these are requirements, but they are really adjuncts to medical care and should not be permitted to serve as substitutes. Because good medical care is the prime goal, planning for the basic objective should include major input from physicians and nurses experienced in emergency care treatment. Dependent on the resources available, the medical professionals must determine the level of care that can reasonably be achieved. In a region with advanced life support response units, sophisticated on-scene care is possible, where it may not be if only basic life support teams are available. These are the factors that must first be considered prior to planning scene control, transportation logistics, etc. Hospital delivery also must be based on patient medical need, and not on the desire of a hospital to receive patients or an ambulance to bring them. Thus, professional medical input to determine policy and objectives is the first requirement in MCI planning.

The actual formulation of the logistical and operational plan probably should not be the responsibility of physicians or nurses, but rather those who are the providers – essentially the public safety people who must develop

the coordination of resources and all that that entails.

BARRIERS TO A WORKABLE PLAN

The MCI plan that has been medically formulated and carefully constructed to maximize coordination still will undoubtedly be defective when put to an actual test. Few of us expect most plans to work perfectly, but in MCI planning, the barriers to perfect operation are practically insurmountable. To begin with, MCIs take place in different settings. Coping with the effects of a tornado that has produced destruction over a wide area is far different from the collapse of a single building where trapped victims are slowly evacuated over a period of hours. In the latter instance the incident is geographically limited with sufficient time for the medical response to get in place; but not so in the former, where victims may be readily accessible but scattered over several square miles. A different plan for every type of event would be totally confusing; therefore, the plan devised must be flexible in an attempt to counter different demands. The danger with flexibility is that it dilutes the plan, and leaves unsaid “what to do if . . .”

MCI response requires the sudden, effective coordination of multiple groups; a difficult task under everyday conditions, but far more difficult at a multiple casualty scene. A large fire requires the effective coordination of multiple fire units or even departments; in contrast, MCI response utilizes a heterogeneous array including police, firefighters, ambulance personnel, civil defense personnel frequently, as well as nurses, physicians, and hospital administrative personnel. To expect these diverse groups to work in perfect rhythm and harmony on an occasional basis is unrealistic. Frequently potential discord between groups can be discerned at the planning stage, but is glossed over with the feeling that when the “chips are down” everyone will work together. This attitude may result in a plan being promulgated more easily, but in fact dissatisfaction at the

planning level may well blossom into overt non-cooperation at MCI scene level. This is a problem that if neglected can add an unnecessary barrier to those that already exist.

There is no single word to describe a multiple casualty scene. One instead reads of “terror”, “confusion”, “turmoil”, “uncertainty”, “anguish”, “confusion”, etc. It is not by accident that confusion is mentioned twice; it will appear again and again in any list of words describing the scene of an MCI. The MCI scene seems to have a major psychological impact on even those continually exposed to the everyday flow of acute illness and injury, whether public safety or medical personnel. We are trained to react to the individual, and to a certain extent, to prioritize when several individuals are presented at once. But where many individuals all appear to need our concurrent attention, we experience difficulty coping — we do not know where to begin. Because of this uncertainty, priorities continually change. At first one priority is to attend to a patient; suddenly it changes to become mass movement of victims to a safer location, interrupted by a new priority to survey all patients before taking further action, etc. Confusion is inevitable.

The psychological impact of working under difficult conditions in a strange environment becomes a factor. The emergency department nurse, for instance, who feels at home in the bustling confines of that department, may feel completely overwhelmed when confronted with an equal number of patients scattered around a transportation accident. About the only time the nurse is going to be exposed to such an environment is during an MCI — so not only is the exposure rare, but also it occurs under the worst of conditions.

A definition that we have used before is that disaster response is many people trying to do quickly what they normally do not do, in an environment with which they are not familiar. The most important barrier is frequency. If MCIs were frequent the “many people” in the above definition would be doing what they

normally, or at least frequently, do and would be used to the environment. While increased frequency of MCIs would be very helpful in terms of developing effective responses it is hardly acceptable to either desire or expect that such should happen.

The fact that a medically effective MCI response is difficult to achieve should not serve as an excuse to neglect planning. Certainly one needs an effective regional EMS system for an effective MCI response. If the daily handling of acute patients at either the pre-hospital or hospital level is marginal, the handling of mass casualties will be predictably poor. Before spending extensive efforts on disaster planning, a region should concentrate on developing its everyday system, and once this has reached at least an acceptable level, pursue in greater depth how the everyday system will be utilized for mass casualties, and what extra-ordinary measures have to be incorporated.

As emphasized earlier, the first step is to outline what medically needs to be achieved, and based on the resources available, what is practically achievable. One then attempts to combine flexibility with everyday and extra-ordinary response capability into a coordinated whole, taking into consideration local "politics" that requires deferral to a particular official who, rightly or wrongly, insists on "his" way. This is as much as one can or should expect to do in the initial planning stage.

It is far wiser to begin with a simple plan and build upon it as necessary than to devise, at great effort, a sophisticated plan of action that is more difficult to carry out than the actual MCI operation.

OPERATIONAL EXPERIENCE AS A PLANNING FACTOR

Operational experience is a far more important factor in success than "brainstorming" a detailed sophisticated plan. Of course, operational experience is gained only at the rate

MCIs occur, and a single MCI does not provide a whole gamut of experience.

Our own experience in New York City in the past decade, however, has convinced us that our improved ability to provide medical care to MCI-produced patients was not a product of original planning, but rather was the product of confrontation with the factors that served as barriers to effective operation, and repeated opportunities to cope with these barriers and overcome them. Total success has still not been achieved.

THE NEW YORK CITY PLAN

The Citywide Disaster Medical Plan of the City of New York was written in 1968 in response to the great concern of the City's administration about civil disturbances. Not only was there no plan for coping with the medical care aspects of riots, there was really no specific plan for dealing with any kind of mass casualty situation beyond sending "some" doctors and nurses from the nearest major city hospital.

The Plan in its original edition was simple, flexible, and was based on medical objectives. That it was simple resulted not so much from a realization of the importance of simplicity as from a general lack of knowledge as to what more we could add. The Plan stressed the response of EMS (emergency medical services) personnel, hospital medical teams (similar to previous procedures), scene triage and treatment, and the delivery of patients based on categorization of hospitals into three levels of capability. Hospital representatives had strong input into the Plan as did the Mayor's Emergency Control Board. Review sessions were held with officials of both the Police and Fire Departments prior to Plan publication at the beginning of 1969. At this time an EMS organization existed but without a great deal of control — ambulances were as much the responsibility of hospitals as of EMS, the Police Department was totally responsible for

the dispatch of EMS ambulances (EMS, then known as the Ambulance and Transportation Service, was part of the Department of Hospitals), and EMS lacked 24 hour supervisory coverage.

The workings of the Plan called for response of ambulances dispatched by and at the discretion of the Police Department. If warranted, the Police Department would also dispatch a hospital based disaster unit staffed with nurses and resident physicians. The latter would be responsible for medical care and medical decisions at the scene, while the EMS official on the scene would serve as liaison to police or fire officials in charge, coordinate ambulance activity, provide logistical support to the professional staff, as well as provide administrative direction. There was general agreement to the soundness of the Plan. The only concern expressed was by the administrators of two of the municipal hospitals supplying disaster teams who felt that their administrative staff should assume responsibility at the scene rather than someone from EMS.

Over the next two years, there were perhaps a dozen incidents that could be considered full scale MCIs. In the great majority, patients received no significant evaluation or care at the scene, and were transported to hospitals based not on categorization but rather on proximity, or the transporting ambulances' base hospital.

On first evaluation, we had every right to question whether there was any reality to our Plan. Still, there were bright spots. We found that once we could control the medical response at the scene, and could make police or fire officials aware of our presence, that it was possible to control patient handling and distribution. This generally occurred when higher level staff of EMS reached the scene early on in the course of the incident.

THE EXPERIENCE PROCESS

While disappointed that the Plan was not being followed, we still felt that our objectives

were correct, but that our methods had to be either improved or modified. Two incidents a week apart in 1970 firmly convinced us that having medical teams respond to the scene was of minor value unless they had an immediately available "workshop" for patient care. In each incident — one a skyscraper fire, the other an explosion — the responding medical teams, in spite of timely arrival, were of little value due to lack of, or delay in finding, suitable treatment space. A sidewalk in December (or for that matter June) does not constitute suitable space for definitive treatment.

Less than a year later we had our first MERVAN (Mobile Emergency Room Van) unit, a gift of the Julius E. Stolfi Educational and Research Fund. There are now 5 such units stationed within New York City, each equipped as a small emergency department on wheels, capable of caring for an average of three stretcher patients in addition to several ambulatory cases. The MERVANs emerged not as a planning concept, but to fill a recognized operating gap.

A presumption that we came to realize was false was that our existence defined our mission; by 1970 EMS had become the centralized agency for pre-hospital care with official responsibility for the handling of mass casualties. While police and fire personnel knew there was an ambulance service, there was no perception of an EMS organization or a responsibility beyond that of transporting patients. We naively believed that our review of the Plan with Operation Division personnel of the Police Department would result in instant recognition. It did with the 3 or 4 high ranking officers in the Operation Division, but there still remained some 30,000 other police officers of all ranks. This kind of identity problem is likely peculiar to a very large city such as New York, but the need to have the missions of those involved in MCI response recognized and accepted is not. Rather than attempt to educate all 30,000 police officers, we concentrated on apprising the higher

ranking members of the Fire Department and Police Department of our mission and capability as well as officials of other agencies frequently involved in MCI situations.

What became apparent over a number of years was that the interdepartmental cooperation at the management level was often based on a personal recognition and acquaintance between EMS administrators and Police, Fire and other officials. While we have said that an emergency plan should designate people by title or category and not individual names (since the named individual may be unavailable), actual experience indicated that familiar faces were far more important than titles. In terms of subsequent planning, informal emphasis has been placed on exposing higher ranking EMS personnel to their counterparts in the other public safety services. That one should have to consciously build familiarity and recognition between fire, police, and EMS supervisory personnel may seem ludicrous to those in smaller cities or regions where such familiarity is a natural phenomenon. But in the kind of large scale incident where this recognition counts, the smaller city or region will be receiving help from “out-of-town” – from county, regional or state sources. While familiarity has been said to breed contempt, it may in fact breed cooperation and should not be overlooked.

Perhaps the most constant reaction that we noted was the tendency for first responders to remove or to try to remove patients from a mass casualty scene. The feeling of helplessness that initially confronts the rescuer faced with real or apparent multiple injuries is invariably replaced by a reaction to do as much as possible as quickly as possible, which generally translates into victim movement intra-scene and away from scene. In some instances, such activity has no significant impact on patient outcome. This does not excuse it. Increased mortality and morbidity are always potential consequences of inappropriate action. Our whole objective is to

minimize these, regardless of time or circumstance.

To combat this, we felt, required the establishment of EMS command and control as quickly as possible. In practice it generally has not been possible to effect this in situations where instant casualties have been produced. The relative sparsity of EMS supervisors and resources does not permit sufficient volume of rapid response compared to police and fire or related personnel. On the other hand, where casualties are not produced immediately, it is possible to effect EMS control. It has become clear that personnel of the Police and Fire Departments, as well as others in specific situations, i.e., transit and airport rescue personnel, must be trained to provide basic triage and immediate care. Further, they must be taught the principles of mass care as well as the objectives sought at the scene, in transportation, and in hospital delivery distribution. This training is not only to enhance the value of their own patient care roles, but to prevent inappropriate action by “civilians” on the scene. At one recent MCI scene a bleeding patient was quickly placed in a taxi only to exsanguinate prior to reaching the hospital. Had even basic measures been taken, this life would likely have been saved. Immediate control of patient care at the scene is an absolute necessity, a necessity of which we were well aware, but which experience has taught us is difficult for EMS to achieve rapidly. Therefore, this control must be exercised by those response agencies which arrive early *and* in sufficient force.

The number of MCIs producing a significant volume of patients – significant is hard to define but, arbitrarily, will be used for 25 or more – is small, perhaps no more than half a dozen a year in New York City. Yet, the number of potentially significant or initially reported as significant is far greater, perhaps one hundred a year in our experience. This is a wide ratio. On the other hand, initial information not infrequently minimizes what in fact

becomes a significant incident. How to prevent over or under response was a dilemma that we faced. Whereas delayed response, awaiting accurate information, resulted in delayed care and control, over response resulted in unnecessary utilization of resources, removing them, if only temporarily, from on-going emergency calls or emergency department care. Hospital staff particularly resented frequent "dry" runs. Our early experience indicated that initial reports were frequently inaccurate, and often remained inaccurate for considerable periods of time. This experience has not altered greatly in spite of improved communication links.

In order to provide dispatch supervisors with reasonable response guidelines, we evolved an automatic response plan of personnel and units, and hospital notifications. This plan relieves the dispatch supervisor of "second-guessing" at a time when he is least able to do so, and results in a quick response of a small number of units and supervisors. The response can, of course, be escalated at any time. MERVAN response which involves the sending of hospital staff is automatic in only a few instances, thus minimizing their unnecessary utilization.

Basically an MCI is defined as any incident which is reported as having produced 5 or more injuries, or by its nature is a potential cause of mass casualties. Included under the latter would be explosions, building collapses, major fires, major transportation accidents, riots, and hostage situations. Major fires (second alarm or greater) average two a day, and account for the majority of the approximate one thousand MCI responses annually. Multiple casualties are not produced in the majority of major fires, but an MCI response is maintained not just for the potential injuries, but for practice as well. Since at least one EMS supervisor responds to all MCIs, it provides continuing experience for them in terms of working with personnel of other agencies, and in practicing communications and ambulance control procedures. Such incidents therefore,

serve as continuing "real" drills for field supervisors, ambulance crews and central dispatch supervisors and dispatchers. The degree of familiarity and experience gained is a great asset when dealing with the incidents that indeed do produce mass casualties.

When the Disaster Medical Plan of the City of New York was prepared in 1968, it relied heavily on a rapid physician-nurse response to effect triage and supportive care. One problem already noted was the lack of patient care facilities at the scene, a problem solved, at least in part, by the MERVAN vehicles. Experience, however, has led us to question the practicality, and even the need for physician-nurse response, particularly in an urban setting. Our feeling is that paramedics (Advanced EMTs) have the skills needed for both definitive triage and supportive care at the scene. They can respond more quickly in greater numbers, and are used to the field environment, and the other rescuers working in it. In comparison the response of MERVAN can be half an hour or more because of the time required for physicians and nurses to free themselves from their emergency department assignments. Secondly, the physicians are generally house staff members with little or no experience at multiple casualty scenes, as indeed may be the nurses. Finally, the first MERVAN responding will likely be from a hospital about to receive MCI patients, and to strip, even partially, the hospital staff, particularly during off-hours, is counter productive. Medical teams have been effective in those situations in which the MERVAN has been used as a standby medical facility, generally at a fire with a relatively slow and controlled rate of patient flow. In these instances, however, paramedics could probably provide the needed level of care. Since New York City has only begun to develop an advanced EMT level pre-hospital response system, little experience exists, but we would expect that in a few years physicians and probably nurses will be replaced on the MERVAN units by paramedics, and the phy-

sician's role will be voice medical control from the confines of a base hospital.

Another difficulty that was faced on numerous occasions was the role of the ambulance crew as patient "treaters" versus patient transporters. A subway crash in 1970 illustrated this difficulty. Arriving ambulance crews descended to the tunnel and began providing aid to patients who were then moved to the street by other rescue workers. Since the ambulance crews were not with their vehicles, patients had to remain on the street awaiting transport. In this instance, transport was delayed in order to provide initial treatment. The opposite also occurred frequently when patients were placed in ambulances as they arrived on the scene. Unfortunately, the least serious patients were generally the first to be brought out by fire or police personnel, resulting in quick transport of those who needed it the least, and no initial care, and often delayed transportation, for those who needed it most.

An ambulance crew must therefore know on its arrival whether it will be used primarily for treatment or transport. This is not difficult once command and control have been established, but is a problem in the early stages of MCI response. Which role the early arriving ambulance crews take will depend to a large extent on the training and capabilities of the first responders, whether police, fire or other public safety personnel. If first responders are trained as EMTs, EMT ambulance personnel can concentrate on patient care during transportation. If first responders are not trained, or if ambulance personnel are trained to the advanced level, their efforts should be initially directed at triage and patient care. In this instance, ambulances are "deadlined" until such time as decisions based on patient need for transport are made. The advantage to having first responders trained in initial care is obvious, and underscores the need to include fire, police and similar personnel in EMS related training, and to identify the roles expected of them.

Communications are a key to successful MCI response. Communications refer not just to the ability to exchange information at the time of an incident, but to a continuing dialogue between those who are likely to be involved in MCI response. As was mentioned earlier, discussing the newly promulgated Citywide Disaster Medical Plan with the New York City Police Department was in no way sufficient communication to result in operational cooperation. This has been achieved reasonably well now through repeated communication at various levels -- the kind of communication that evolves into a first-name basis. This kind of familiarity needs to be bred with those most likely to be involved. This is not to say that an MCI is a social gathering, but the operation also cannot be run as though it were a recipe from a cookbook. Flexibility of action and direction is required, and this flexibility is much easier to attain if those in charge can communicate in the broad sense of the term.

Since the inception of the Plan, EMS has greatly increased its communications hardware, and therefore its ability to exchange information. We did not require operational experience to convince us of the need to communicate on the scene, between the scene and central dispatch, and between the scene and hospital. But the ability to do this was contingent upon funds to construct an EMS Communications Center, to purchase mobile and portable transceivers, and to obtain sufficient radio frequencies. Until we had these capabilities, however, we did not realize the extent of their importance.

One operating procedure we found necessary was the channeling of all information to one on-scene Communications Center. This process eliminates conflicting or duplicative requests, and minimizes misinformation. Direct MCI scene to hospital communication has been eliminated, since the inception of the EMS Communication Center. Experience showed that direct communication between MERVAN

professional staff and their base hospital often resulted in duplication or conflicting efforts when a hospital administrator attempted to "run" the scene via radio.

With the exception of direct or open line instruments, we have found the telephone to be a cumbersome method for MCI communications. Attempts to call a hospital or emergency department during an MCI are fraught not only with the frustration of trying to get through, but once having done so, to identify to the answering person's satisfaction the legitimacy of the information or request being given. Radio or direct hard line communication obviate both of these difficulties.

One factor in MCI planning that is briefly worth mentioning is the maintenance of "routine" emergency care during an MCI. In the natural excitement that accompanies a major incident, resources tend to be committed en masse with neglect of other medical emergencies occurring concurrently. The person experiencing a myocardial infarction is no less deserving of care because of a subway accident a mile away. The system that cannot respond to this patient is derelict, particularly if, as usually happens, some or even many of the MCI victims have not suffered life threatening emergencies. What has the EMS system accomplished if it commits its resources to caring for lacerations and fractures while the heart attack victim goes into ventricular fibrillation awaiting help that is not forthcoming or is considerably delayed? Our attempts to counter this were the relocating of ambulance to cover for those in the MCI area. Unfortunately, in this geographically complex City, relocated ambulances were often unfamiliar with the areas to which they were called to cover. Our eventual solution was to have them respond instead to the MCI, releasing some of the locally based units back to their normal areas of coverage.

Many would probably question the relevance of experience in New York City with respect

to other cities or regions. Certainly New York is not a typical city in size and great concentration of people. But the unforeseen problems we have encountered, many of which have been mentioned to a greater or lesser extent in this article, are not unique to New York. One may question the practicality of depending on experience for the development of an effective MCI response when a region experiences a significant MCI only every year or two, or perhaps every three or four years. This degree of exposure limits the extent to which scene experience can be a factor in developing an effective response system. But multiple exposure is not the sole determinant of experience. While each significant incident engenders some new problem, the major problems were ones that we recognized early on. One does not have to respond to a dozen incidents to discover that the regional MCI plan is faulty.

Where repeated exposure becomes beneficial is judging the adequacy of fault correction. It may take 3 or 4 incidents, for instance, to develop good, first responder activity, or to develop effective communication coordination. Theoretically, a region with a high number of MCIs will take as long, in terms of the number of incidents required to develop a certain level of proficiency, as the region with a low number of incidents. Thus each progresses at the same rate in terms of benefit to the MCI patient. In actual fact, the increased frequency in the high MCI level region is a distinct advantage, since the reduced time between incidents enhances knowledge, retention and skills. Nevertheless, there are other means of gaining experience. One, of course, is learning from others. Hopefully, some of the experiences mentioned in this article will be helpful to those concerned with MCI response. Unfortunately, there is not yet an extensive array of literature on the subject of MCI handling, but with the interest in emergency medical care that has developed in recent years, such will emerge.

THE DISASTER DRILL

Somewhere between one's own experience and that of others elsewhere, is the drill or practice session. The drill, in our experience, is not a good test of ability to provide quality care. With experience – and again one needs experience to have effective drills – drills can, however, be an effective method of testing logistics and coordination. They are a rehearsal of roles within a group, i.e., EMS, and between groups, i.e., EMS and police personnel. They are a means of testing communications, and a means of developing those ever so valuable interpersonal relationships.

The use of drills in expanding one's ability to provide good MCI care is almost an art itself. Drills held infrequently, i.e., a year or more apart, have little meaning because there is no continuity between them – the time is too long to effectively carry over the positive, or alter the negative factors of the previous drill. Frequent drills, on the other hand, (without intervening actual MCI incidents) tend to make participants very good in practice. The danger is that they become so well trained in the artificial setting that any significant deviation from it, as is likely to occur in a real incident, confounds them. With a little imagination, the drill setting can be multi-varied to the point where participants do not know what to expect.

A method that will diversify drills is to arbitrarily select a real incident that would not qualify as an MCI, but respond to it as though it were. This provides the elements of surprise, and spontaneity, as well as some of the excitement that accompanies the true large-scale incident. Obviously this type of exercise requires care in execution. The concept is similar to our automatic EMS response to second alarm fires described earlier.

For too long a time the community disaster drill has been regarded as an annual or bi-annual event that “we really have to do”. It is regarded with the same enthusiasm as we at one time gave the dreaded visit to the dentist.

Similarly, responsibility for the bi-annual hospital drill has been relegated to the most junior administrator and when held is more for “the record” than any other purpose. It is clear that much greater attention must be given to effective simulation of mass casualty care as a training mechanism.

SUMMARY AND CONCLUSION

The planning and development of effective operations for the provision of quality care to mass casualty victims involves several different processes, and considerable time. The total process is difficult, and even partial perfection is all but impossible to obtain because of a number of barriers that are related to the rarity of mass casualty incidents in any given region, the diverse groups of rescuers and medical personnel that are involved, and the psychological impact that mass casualties have on rescuers (an off-shoot perhaps of lack of MCI experience).

Before expecting to have an effective MCI response, those responsible for regional emergency medical care must develop an effective “routine” emergency care system, at both pre-hospital and hospital levels. The EMS system that offers acceptable care, but barely so, on an everyday basis, will provide less than acceptable care under the stress of an MCI. Once confident that a solid EMS system is in place, attention should be directed towards the formulation of a simple and flexible plan for the care of mass casualties. It is important, in fact crucial, for this plan to be based on medical care objectives, and therefore to have the input of physicians and nurses with extensive emergency care experience.

That the plan developed does not “work” effectively when first tested should be cause for neither surprise nor discouragement. Our experience in New York City, where we faced many MCIs of varying severity, proved that operating experience was the most important factor in developing an effective response. The cause of the strongest impediment to effective

initial care was the lack of training in MCI management and patient care by the invariable police and fire first responders. While it is easy to assign first responder responsibilities in a plan, it is quite another task to see that the responsibilities are carried out. Over a period of a year, perhaps a little longer, after the promulgation of our disaster plan, we experienced virtually all of the factors that we have recognized as being the difference between what we planned or wanted to happen, and what did occur. Correction of the deficiencies may or may not be as rapid or as simple as their recognition. While we have been pleased with the increased quality of our MCI response, some major defects remain; a result of not what has to be done, but how to do it amidst many other priorities.

Few regions have the kind of exposure to MCIs as we do in New York City, hence they are limited in gaining operational experience. Nevertheless, one can capitalize on what does occur, as well as utilizing the experience of others such as ours in New York. Further, the utilization of drills, designed in perspective, can be most valuable in developing many of the elements of effective MCI response.

In assessing or planning MCI response, consideration must be given to the nature of the incident. While those in EMS have a right to take pride in any operation where quality patient care is the end product, we should distinguish between those scenes where it is readily possible and those where it is all but impossible. Consider two settings – the one, a collapsed building with 50 live victims, freed from entrapment over a three hour period, on a temperate midweek morning, in an urban area with three nearby major medical centers;

the other, a plane crash, early on a snowy Sunday morning, with the 50 live victims scattered over a half mile area, 50 miles from the nearest medical center. One should not get so pre-occupied with the latter type of incident that the former is overlooked, nor should one be content that a “job well done” at the former type of incident is necessarily indicative of a similar accolade to be deserved when confronted with a much more difficult incident.

MCI care is not a crisis issue. If civilian multiple casualty scenes are increasing in number, either in the United States or worldwide, the increase cannot be dramatic. Under the circumstances MCI care has probably not been bad, or certainly any worse or better than emergency medical care in general. This is not to suggest that the circumstances referred to should not be altered where possible to permit improved care, or that we should be content with poor MCI care whether or not “routine” care is good or equally poor. MCI care is a response of the broad EMS system often with some additions, and that is why first attention must be paid to the development of that system. On a national scale we are doing just that, making it now feasible to in turn begin to look at effective mass casualty response. Those who are beginning to do this must first realize that an MCI is not just a larger-than-usual accident; it has its own characteristics and creates special problems. Planning by those who are familiar with, those who have experienced these characteristics and special problems is essential if effective response, and hence the objective of prompt quality medical care, is to be achieved.