
**ORIGINAL SCIENTIFIC PAPERS TO BE PRESENTED AT FIFTH
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**NEEDED INNOVATIONS IN
EMERGENCY MEDICAL SERVICES IN
PRESENT AND FUTURE DISASTERS**

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Our remarks, while derived from recent empirical studies on the delivery of emergency medical services (EMS) in large mass casualty situations in the United States, are intended to be applicable to all societies. We also use the current scene to project into the future for a common major mistake in disaster planning is to look backwards, not forward. Our six basic themes are: 1) Present day planning for the delivery of EMS in large mass casualty situations is based on an incorrect model, namely that there is only a difference of degree between everyday EMS and disaster EMS, but the difference is one of kind as well as of degree. 2) While there are major differences between disaster EMS and everyday EMS, there are some non-everyday situations which can be used as prototypes for disaster EMS delivery. A common example of EMS preparedness in such situations is to bring hospital services "closer" to the victims. 3) The suggested change will be rather difficult to institute. Besides the normal difficulties which are involved in instituting an everyday EMS system, there are more political and status difference problems in instituting a standby disaster EMS system. 4) Furthermore, the delivery of disaster EMS in the future will be more difficult than at present because of the probability of worst disasters, and because the sophisticated and complex medical technologies being developed do not lend themselves well for use in disasters. 5) We need to be innovative in making use of technological possibilities and in working out better institutional arrangements in preparing for large scale disasters. 6) In addition, we have to assume that the technological advances and the future disasters are not going to be the same everywhere around the world so different types of models of disaster EMS delivery are needed.

**TEN GOLDEN RULES FOR URBAN
MULTIPLE CASUALTY INCIDENT
MANAGEMENT**

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Responsible authorities are continually compelled to develop and revise "disaster plans" in order to demonstrate that they are prepared for major incidents. While such plans may be useful in generating contact lists, resource dedication agreements, and certain local policies, they are generally forgotten at the time of an actual major multiple casualty incident (MCI). From our experience, as the responsible designated medical directors of our respective urban municipalities' emergency medical services (EMS) systems (Houston, Pittsburgh, Seattle, USA), we have favored a simple list of ten golden rules that guide our planning approach to the MCI: 1) Follow day-to-day routines as closely as possible or prospectively modify those routines to meet potential MCI requirements; 2) Do what will save more lives long-term; therefore, protect rescuers and remove healthy victims if hazards still exist and then provide standard triage, recognizing the potential for a "second pass" phenomenon; 3) Establish a centralized easy-to-identify incident commander (IC) and post (CP) with committed inter-agency liaisons attached at the CP. Each individual at the MCI should be told exactly to whom they report in the hierarchy of the IC, sector chiefs (SC), and their respective sector leaders, and each task delegated to a specified individual; 4) Communicate transmissions succinctly in a "clear zone" with updated assessments and alerting of auxiliary support and receiving facilities; 5) Keep in mind that fewer knowledgeable, designated rescuers are better than many well-intentioned but inexperienced "outside" volunteers who should be assigned to a holding area in case they are needed; 6) Triage and evacuate according to usual receiving facility capabilities until alerting systems are in gear; 7) Provide, if possible, an emphasis on centralized evacuation with continually-