

---

## Preface

It is today clear that the incidence of major incidents – *situations where available resources are insufficient for the immediate need of medical care* – has increased significantly parallel to the technical and economical development in the world. To maintain and continuously improve our standard of living requires continuous development of advanced technology, and the price we have to pay is the risks connected to this development. Our technical development has also generated changes in nature and climate, leading to an escalation of what have been called natural disasters, but which have been, to an increasing extent, caused by man. The increasing global population and the remaining, and in some areas even increasing, differences in the standard of living between poor and rich countries creates political tensions, leading to armed conflicts and terrorist actions from which no place in the world is safe.

Parallel to this, and as a paradox, the vulnerability of our health care system to such situations has increased: Increasing demands on efficiency reduce or eliminate the “reserve capacity” for high loads of casualties; we are increasingly dependent on vulnerable technical systems; and continuing subspecialization reduces our ability to deal with emergencies outside our own narrow specialties. Decision makers in health care and education have a heavy responsibility to act in accordance with this – a responsibility that not is taken everywhere, especially on the educational side.

Medical personnel of all categories and on all levels have the responsibility to prepare situations like this so that we can handle them in the best possible way, eliminating or reducing loss of life and health, as well as physical and psychological suffering, consequential to such incidents as much as possible. This requires planning and preparedness, but it also has been clearly shown that the most important thing is that staff of all categories are accurately trained to meet these situations. It is not enough to “continue to do the normal work and do it more efficiently”; additional skills are needed for accurate management and performance in these difficult situations:

- Make decisions with regard to priority when the need of care extensively exceeds available resources and accurately adapt these decisions to the situation; this does not only include priority among patients (triage), but also the priority in performing diagnostic and therapeutic measures, i.e., it involves all medical staff.
- Primarily treat emergencies with injury/disease outside our own specialties because the access to specialists will not be sufficient.
- Use simplified methods for diagnosis and treatment because the access to advanced technology will be limited.
- Handle reserve systems as back-up for our vulnerable technical systems.
- Work as an integrated part of a prepared alert and response process, which requires knowledge of this process.

*None of this is possible without education and training.* Different from most clinical specialties, training cannot be done in the “real situation” (the major incident) but has to be done with the use of simulation techniques, which puts high demands on those responsible for the training.

By far the best way to perform such training is by the use of interactive models – “learning by doing” – where all participants are trained in decision making on all levels, from command and coordination down to the level of patient management: what to do with patients in this particular situation, the priority in which to do it, for the best use of and how to do it, for the best possible use of available resources. This requires training models that supply information detailed enough to serve as a basis for decisions and that show the results of the decisions with regard to outcome in mortality and complications.

To allow enough space for interactive training, traditional lectures should be reduced, which requires textbooks that help students prepare themselves for the training. Textbooks within this field so far have been either directed toward planners or managers or deal mainly with basic trauma management. Based on experiences from the interactive European courses in medical response to major incidents (MRMI), this book has been created to fill the apparent need for a practical guide for all medical staff that covers the whole spectrum of required knowledge from the level of command and coordination to the practical management of casualties in these difficult situations, thereby collecting all the basic knowledge required into one comprehensive and easily accessible format.

Variations exist between countries with regard to both terminology and organization. The international group behind this book has put much effort in adapting the text and content to what we have identified as a common standard for most European countries. We will always have slight differences in terminology and organization, based on differences in health care systems, culture, economy, and traditions, but we consider the principles described here simple to adapt to the standard of any European country and probably to most countries outside Europe.

This book has been created by the members of the core faculty of the MRMI courses, all of whom are highly devoted to this task, with the help of an international group of experienced specialists within different sectors of major incident response. As editor and coordinator of the book, I want to express my sincere gratitude to all those who have put time and effort into contributing to it, all for the benefit of the continuously increasing number of victims of incidents of this kind in all parts of the world.

Söderköping, Sweden

Sten Lennquist

Medical Response to Major Incidents and Disasters

A Practical Guide for All Medical Staff

Lennquist, S. (Ed.)

2012, XXIV, 413 p., Hardcover

ISBN: 978-3-642-21894-1