

Major Incident Medical Management and Support

The Practical Approach at the Scene

Third edition

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Advanced Life Support Group

EDITED BY

Kevin Mackway-Jones

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 Advanced
Life
Support
Group
*A charity dedicated to saving life
by providing training*

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Preface to the third edition

It doesn't seem 17 years since the first edition of this book was published – but it is, and many major incidents have occurred around the world during that time. One incident, the destruction of the twin towers in New York in 2001 has changed the way that we perceive the world and has, incidentally, catapulted major incident response into the big-time. Governments have put time, money, and effort into improving their response and much has been learned. It is, therefore, a good time to review this text and to take the opportunity to include this new knowledge and some new procedures into our teachings. I hope that readers will find that we have done just that, whilst retaining the core messages of MIMMS – particularly our structured approach (CSCATTT) that has become widely accepted itself and is now practised around the world. I am grateful to contributors old and new for their efforts, and to you, the readers and course participants, whose feedback has been most helpful and has, in the main, been incorporated here. Major incident response will always be hard. The harder you train the easier it will become.

Throughout this text the male gender is used, whether male or female applies. This is a typographical convenience.

K. Mackway-Jones
(*Editor*)
Manchester 2011

Preface to the first edition

'It couldn't happen to us' is not an acceptable excuse for being ill-prepared to deal with a major incident. A major incident may occur at anytime, anywhere.

Guidelines exist for the health services response to a major incident and these cover both the hospital and the scene. Each hospital must have its own Major Incident Plan and this should be regularly exercised. How well do we teach the principles of the major incident response to our medical and nursing staff? How much do we learn from our exercises? Are mistakes being repeated?

It is no longer acceptable to approach the scene of a major incident as an enthusiastic amateur. The transition from working in the emergency department to working at the scene does not simply involve putting on a reflective jacket and a pair of Wellington boots. The medical service must, like the police, fire, and ambulance services, be skilled in command and communications, and have experience of the pre-hospital environment. This is in addition to coping with the enormous strain that mass casualties will place on the medical resources. To do this requires knowledge and training.

This manual, although a stand-alone text, has been prepared to accompany a course structured to teach the principles of management and support at a major incident to health service staff. This course will prepare both the Incident Officers, and other members of the scene medical response for their duties in the event of a major incident.

T. J. Hodgetts
K. Mackway-Jones
(*Editorial Board*)
Manchester 1994

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Finally, our thanks to Gareth Davis and Clare Duffy of ALSG and the staff of Wiley-Blackwell for their on-going support and invaluable assistance in the production of this text.

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PART I

Introduction

CHAPTER 1

Introduction

WHAT IS A MAJOR INCIDENT?

In Health Service terms a major incident can be defined as any incident where the location, number, severity, or type of live casualties requires extraordinary resources.

The number of casualties alone does not determine a major incident for the Health Services. Thirty minor injuries that self-evacuate from the scene may be managed effectively by one hospital without the requirement for additional pre-hospital or hospital resources. The same number of severely injured casualties will almost certainly require extraordinary resources. Certain medical resources may be very scarce (for example, intensive care beds) or regionalised (for example, burns surgery), and small incidents with relatively few casualties can therefore require early involvement of regional or national resources. Where there are large numbers of dead with few or no survivors, there is often no major incident for the Health Services. An incident in a remote or difficult to access location may also demand greater resources to effect the rescue of casualties. In a similar vein, a major incident for one emergency service may not be a major incident for all other services. Where fire or chemical spillage is the predominant issue, without risk to life, a major incident response will be required from the Fire and Rescue Service without the same level of response from other services. Where public disorder is the predominant problem, the principal response will be from the Police. The following examples illustrate this point:

On 2 September 1666 a fire started in a baker's shop on Pudding Lane; it lasted 4 days and left 80% of London's buildings in ruins. A disaster on such a scale is hard to imagine and would certainly overwhelm the resources of the modern Fire and Rescue Service. In fact, only a handful of people died in this, the Great Fire of London.

On 27 March 1977 a Boeing of the Royal Dutch Airlines (KLM) collided with a PanAm aircraft during take-off. All passengers and members of the crew died (total 583).

In January 1975, a large petrol tanker hit the Tasman Bridge, a major transport structure linking the suburbs of Hobart, Tasmania. Thirteen people died, no one was left injured.

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In April 1990 the passenger ferry *M/S Scandinavian Star* caught fire on the Swedish west coast. Most passengers were asleep and smoke inhalation caused the death of 158 people. The surviving passengers were mostly uninjured.

Local highlights: Major incident definitions

A major incident requiring extraordinary resources occurred three or four times per year in the United Kingdom (with a range from 0 to 11 incidents per annum) in the 30 years from 1966 to 1996.

CLASSIFICATION OF MAJOR INCIDENTS

It is convenient to classify major incidents in three ways.

1. Natural or man-made.
2. Simple or compound.
3. Compensated or uncompensated.

Natural incidents

A *natural* major incident is the result of a natural event such as an earthquake, flood, fire, volcano, tsunami, drought, famine, or pestilence (Table 1.1). To some extent, the natural disaster will be self-propagating: following a flood or earthquake those left homeless and starving will be vulnerable to the diseases associated with squalor.

Table 1.1: Natural incidents (number of injured not accurately known)

Date	Place	Estimated casualties
28 July 1976	T'angshan, China, earthquake	655,000 dead
February 1983	Australia, bushfires	76 dead, 1100 injured
19 September 1985	Mexico City, earthquake	40,000 dead
7 December 1988	Armenia, earthquake	55,000 dead
17 January 1995	Kobe, Japan, earthquake	6398 dead
27 June 1998	Adana-Ceyan, Turkey, earthquake	145 dead, 1500 injured
26 December 2004	Indian Ocean, tsunami	225,000 dead
12 May 2008	Great Sichuan, earthquake	69,000 dead, 375,000 injured
12 January 2010	Haiti, earthquake	220,000 dead, 300,000 injured
11 March 2011	Japan, earthquake and tsunami	21,000 dead, 5888 injured