7

England) – Police –

MAJOR INCIDENTS AND SERIOUS OCCURRENCES

THE PLANNING AND EVALUATION OF AN INTERVENTION SYSTEM

CONTENTS

Chief Inspector B.E.Fisher,
City of London Police,
26 Old Jewry,
London, EC2R 8DJ

October, 1973

PART A - PLANNING AND ORGANISATION OF THE EMERGENCY SYSTEM

1. An efficient emergency service system is indispensable in order to ensure the greatest possible chance of survival of critically ill or severely injured persons at an incident.

2. Emergency services comprise control at the incident, with emergency medical care not only at the scene but during transportation. Improvements in emergency procedures are needed both outside and inside the organisations in industrialised as well as in less developed countries.

3. Planning and organisation of an emergency scheme should be based on an analysis of the existing system within an area and after definition of the aims, improvements should be implemented as regards education, emergency communication, transport and hospital facilities.

4. Efficient co-operation between local and/or central authorities and all categories of emergency service personnel must be secured.

5. There should be a central dispatching system for each emergency service with radio communication between vehicles and the emergency centre and empowered to select the vehicles to be despatched according to the needs of the incident.

PART B - COMMUNICATIONS

Communications are of vital importance to the efficient operation of the emergency response system. In many countrie, regions and cities, the basic emergency service elements are present, but not properly organised. In other words an emergency plan has not been developed. Such a plan must precede the development of a unique communication system.

When properly developed, the communications must serve the following basic needs:-

1. An emergency involving human life must be immediately reported to the appropriate agency which manages and controls the emergency resources and services.

2. Ideally all calls for the emergency should be made via one telephone number.

Preferably (a) a common number where all services are available, (fire, police, ambulance) and where direct switching links the caller to the appropriate department; or (b) systems where a common number is identified separately with police, fire and ambulance (i.e. three separate numbers).

To utilise this system there must be general access by the public to a telephone without a coin, including rural areas.

The initial contact should be with a person trained both in communications techniques and emergency evaluation. Thus, screening may be carried out if desired. Ability to directly switch the caller to a senior supervisor should be available.

3. The communications should permit an appropriate agency response to the emergency. This response should minimise threat to life and limb by decreasing the time for an appropriate response to an acceptable minimum. The communications system should permit an appropriate response to any human need, including catastrophe.

4. The communications should permit an agency to provide guidance, direction or consultation to those trained personnel on the scene or even others pending the arrival of such personnel.

5. The communications should co-ordinate all emergency service operations. This co-ordination to include related health agencies such as emergency departments of receiving hospitals and through them the associated special units at the scene (Mobile Medical Teams).

This co-ordination includes transmission of appropriate vital data and information necessary to decision making on line.

6. The communications should maximise data collecting, recording and control so that the emergency system can meet a quality control need as well as evaluate its function and optimize its use of resources in preventing or minimising effects of the incident.

The necessary equipment and techniques to carry out these functions are subject to local interpretation and are beyond the scope of these broad outlines.

PART C - RESCUE AND TREATMENT OF CASUALTIES AT THE SCENE AND DURING TRANSPORTATION

The organisation of the system of rescue, the system of communication, the education and teaching of medical personnel and the education and teaching of other services personnel in first aid treatment and the equipment and co-ordination of the means of rescu provide the possibilities of treatment at the scene and during transportation to the hospital.

It should be the aim to fulfil demands for rescue and treatment in a plan built up in successive steps. This way of organisation seems to be more rational and it prevents the risk of undesirable developments.

1. A rescue system to be built up must be uniform and include transport and treatment of the casualty to the hospital.

2. The system must provide for any incident irrespective of the cause. Specialised rescue teams must be principally rejected. The emergency call to an incident does not often clearly define which of these "specialised systems" should come into action.

3. In each of the rescue systems (ambulances, helicopters, fire service) there must be a flexible module as far as equipment is concerned which permits the fulfilment of all demands, in ordinary as well as special cases. In order to achieve this, standardisation is essential (colour code and symbols).

4. Surface ambulances and ambulance helicopters may be used. These means of transport must be standardised as far as contructional design and equipment are concerned. They go into action as "co-ordinated rescue systems". Rescue by air is only a supplement to the road-bound rescue systems, but with clearly defined tasks.

5. The staff of the rescue vehicles must consist of specially trained emergency personnel, doctors, nurses, etc.

The personnel must be able to carry out all life-saving measures on their own initiative. They may be improved by constant radio communication with competent control centre staffs, particularly medical personnel. This is the only way in which a continuous sufficient control of all means of rescue can be effected.

6. In the field of medicine, emergency personnel cannot always replace the expertise of the physician at the site of the incident, even though the elaborate communicative equipment mentioned under Point 5, above, is available.

7. The emergency personnel must go through a standardised post training programme in emergency systems as a whole. This aim can be achieved only through inter service co-operation.

PART D - CONTINUING LIFE SUPPORT AT THE HOSPITAL

1. The critically injured casualty, after receiving proper emergency treatment at the scene, should reach, as soon as possible, the emergency department of the nearest appropriate hospital.

2. All hospitals should have, at least, facilities of limited emergency service on call 24 hours, composed of a team of qualified doctors and paramedics to ensure complete first aid and to keep the patient alive.

3. Categorisation is necessary although not always practicable; it should be performed by medical specialists but in conjunction with the administrative authorities.

4. Transfer of the casualty in ambulance, or by air or sea transport, should be under the control of qualified medical and paramedical personnel.

5. The optimal team in the emergency medical service should be composed of multidisciplinary doctors.

PART E - DATA ACQUISITION AND EVALUATION OF EMERGENCY SYSTEMS

1. A standard report form should be adopted. It should contain data on all problems and the disposition of personnel and casualties.

2. The data should be in a form suitable for use by administrators and professional personnel. If should detail performance in terms of outcome and be of sufficient detail to point to system elements that require improvement.

3. Evaluation research should be defined as a process utilising scientific research methods and techniques, of which data acquisition is only one component.

4. Evaluation research should be recognised as an essential element of planning, education and research/innovation, and as such must be included from the beginning in the project planning of emergency systems.

5. The multidisciplinary planning team, in addition to professionals from the emergency services, should include statisticians, operations researchers, sociologists or members of other disciplines skilled in evaluation research.

PART F - EDUCATION OF NON-MEDICAL PERSONNEL AND PHYSICIANS

The goal of education in emergency treatment of casualties lies in increasing the quantity and quality of emergency care. The degree and duration of education depends on the pre-existing knowledge of the different groups involved, be they other emergency personnel, laymen or voluntary organisations.

1. As far as the general public are concerned, there is a tremendous need for training in the basic methods of first aid. To get such training spread as widely as possible, compulsory first aid as a requirement for driver's licences and making this education compulsory for schools is an avenue to be explored.

Selected groups of laymen with special interest in emergency care should be taught advanced first aid, including external cardiac massage. All propoganda available should be directed to arouse their interest in the population on a purely voluntary basis.

The duration of courses for laymen will depend on the final aim of the teaching and on the individual circumstances. Refresher courses are essential.

2. The training of paramedical personnel should be looked after with special care. The aim to be achieved should depend on the degree of pre-existing knowledge, as well as the intensity of the work in the field of emergency medicine.

Basic emergency care is the aim of educating the low-grade group of these people, including voluntary and part-time ambulance drivers and general hospital nurses. High-grade paramedics are the bacjground to the spreading of advanced life support and should reach the highest degree of education possible.

A legal fixation of their tasks is to be aimed at.

3. All physicians should at least be educated in basic emergency care. Continuous interest in and exposure to acute resuscitation situations should lead to the level of advanced medical care. It seems necessary to educate the medical student as well.

As a goal, all professional physicians and non-physician members of the emergency system should have their competence tested and be recertified on an annual basis.

PART G - DISASTER PREPAREDNESS

A Definition of Disaster - An event resulting in more casualties and problems than an emergency service is routinely prepared to deal with.

I - A DISASTER PLAN

A City, State, County or Nation must develop a plan to deal with the unexpected major incident and the high number of casualties resulting from such an incident.

The plan must be simple and receive widespread dissemination. It should be drawn up by a Joint Committee or Organisation with the agreement of participating groups such as fire, police, ambulance, physicians, hospitals, local authorities, etc. It is imperative that frequent review and updating of the plan take place and that a local area plan be part of a wider area plan so that mutual aid between cities, counties and even nations is possible. Pre-planned co-ordination of those involved is critical.

Special attention should be directed to events likely to occur and to special risk areas such as airports and heavy industrial complexes. Attention should also be given to the aftermath of disasters, such as health, hygiene, etc.

The plan must take into account at least the following factors:-

(a) Command and control at the scene, leaders and sub-leaders.

(b) Activation of the plan, who, how and why.

(c) Care and Triage of the casualties at the scene, the role of doctors, rescue workers, police, fire, etc., and the use of mobile medical teams and temporary field hospitals.

(d) Communications ability that permits direction and exchange of information between authorities on the scene as well as communication from the scene to a central permanent communications centre (fire, police, ambulance despatch), hospitals, etc.

(e) Transportation for casualties, including ambulances, aircraft, and back-up by means of other emergency transportation.

(f) Logistics of supplies, equipment and personnel.

(g) Use of existing Hospital Service system that permits all or designated hospitals to immediately adapt to care of casualties.

(h) Flexibility of response of graded persons.

II - TRAINING AND PRACTICE

The second basic requirement is that training and practice be an essential adjunct to the plan. It is suggested that attention be directed to the following:-

(a) Training and educarion of those likely to be involved in the implementation of the plan, as to its objectives, its operation and their respective roles and authority.

(b) Training of physicians and others in the principles of triage and in the provision of emergency treatment under sub-optimal and even primitive conditions.

(c) Frequent practice sessions (drills) to develop expertise and maintain efficiency and proficiency.

III - MISCELLANEOUS

(a) Local County or National Government should assume responsibility for the existence of a regional disaster plan. Government may delegate this to an appropriate agency or agencies.

(b) Greater emphasis should be placed by Governments on the development of far-reaching mobile disaster teams and set-ups, using, when available, existing military resources.

(c) Increased support should be given to the efforts of the United Nations and others to develop means to deliver mass emergency support to nations which require resources beyond their own.

This paper has been compiled from discussions which took place in September, 1973, at an International Symposium held at Mainz, Germany and at which the writer was a speaker. Similar recommendations to those shown will be circulated by Mainz University to the 22 countries represented at the Symposium.

END

7 illustrations