SECOND EDITION

EMERGENCY CARE

Assessment and Intervention

Edited by

Carmen Germaine Warner

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To you, the health profession, for your concern and devotion regarding quality emergency care.

To all the contributors who gave of themselves, making this book a reality.

In memory of my beloved father whose gift to me, I now give to you.

Foreword

Because emergency care is administered in such a wide variety of settings by personnel from diverse educational backgrounds, the organization of a comprehensive textbook on this subject presents major challenges.

The need for such a book, however, is evident. When hospitals instituted intensive care units and coronary care units, where continuous, precise monitoring could be offered under the supervision of expertly prepared physicians, nurses, and technicians, assurance that the patient could survive the initial period of trauma or seizure *with minimal suffering and loss of function* became a logical objective.

Achievement of this goal is a tremendous task, supported not only by primary training received in early adulthood, but also by continuing education as well. Proficiencies once developed have to be maintained, and the constant generation of new techniques, electronic devices, and other equipment compounds the overall effort.

Until very recently, a brief course in first aid was considered adequate training for those charged with transporting the sick and injured. Now, however, courses are being created in all aspects of emergency care.

For all those who provide emergency care—firemen, policemen, ambulance attendants, school nurses, industrial nurses, and the physicians and nurses in the emergency department of the hospital—continuing education is critical. Interdisciplinary courses are preparing physicians, nurses, and allied health professionals to work together as highly coordinated teams. Skill in communicating with patients and their families, the ability to talk with people undergoing stress and to intervene in the crisis when necessary, is taught alongside more technical procedures.

Emergency Care: Assessment and Intervention is an important contribution to the encouragement of the interdisciplinary approach.

The latest concepts in the intervention of trauma and some entirely new material on the topic of aquatic medicine are prominent features. The reader will find the book a valuable resource for basic as well as continuing education.

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Preface

The quality of emergency health care has become an increasing concern of emergency personnel over the past several years. With the 1972 passage of Public Law 92-603 providing for the creation of professional standards review organizations and the development and funding of health systems agencies, the quality of emergency care has been questioned by patients, hospitals, health personnel, and government. It is realized that often the actual performance of this vital function is inadequate, and legislation is now requiring accountability.

This book is an attempt to assist those responsible for providing quality emergency care to address this need with confidence and skill.

In the past, emergency department personnel and those performing prehospital emergency intervention had minimal or no specialized education and were confronted with situations in which lives were lost or disability prolonged because immediate proper care could not be initiated.

Fortunately, personnel now have the opportunity to acquire and utilize advanced education and performance skills. The Emergency Department Nurses' Association, recognizing the need for advancement, has established committees that have developed a core curriculum accompanying educational materials and an examination that provides certification for the "emergency nurse specialist." Continuing education for emergency physicians is following the same trend for advancement and upgrading.

With an increased emphasis on prehospital emergency care, utilizing paramedics as well as nursing personnel, the effectiveness of accessible quality care has saved many lives, resulting in the acceptance and support of such programs by the consumer.

Administering immediate appropriate emergency care will save lives and assist in the reduction of hospital costs and length of stay. Aspects of good preventive health maintenance, patient and family teaching, along with recognition and use of referral agencies, will reduce repeat visits and misunderstanding of prescribed intervention.

It is hoped that this book will enable all emergency personnel to counter some of the dissatisfaction with the current health delivery system.

Greater authority and direct responsibility must be accepted by everyone. Immediate proper emergency care must be the ultimate goal of every member of the emergency care team.

The second edition of this book has been prepared with minimal delay and frustration thanks to the cooperation and enthusiasm of many. The contributors, sharing their talents and expertise, have proven to

be an asset to the advancement of emergency care.

A very special and unique addition has been provided by James D. Herrick and John R. Cote who, with their pharmacological knowledge, have reviewed every chapter to assure consistency and accuracy throughout the book. This was an incredible undertaking, and their patience and perseverance have been commendable. Again I am proud to honor the talents of Sue Adornato, an extremely creative medical illustrator, and Pat Summers, a typist whose meticulous manner has contributed to the quality of this book.

It is with great pleasure that I share with you the second edition of this book. A considerable amount of knowledge, dedication, and sensitivity has gone into its preparation, and it is an honor to be associated with all those involved.

Carmen Germaine Warner

Contents

CHAPTER 1

Elements of an emergency medical care system

Stephen P. Murphy, M.B., B.Ch.

Emergency health care—the phrase has such a fine ring to it! Like pure water and clean milk, we assume that it is there when we need it, if we only call. Yet for most of the country, this is not a reality. What should be available as a system of emergency care is rather a nonsystem born of a long line of ignoble ancestors, the great progenitor of the line being apathy. The "don't care" attitude seems to be at every level of government and health care when it comes to emergency medical care. Everyone agrees that such care should be available somewhere, but somebody else has the key! Emergency medical care is work; and only hard, long and consistent effort combined with planning will result in an effective emergency medical care system. There are no shortcuts, no easy ways, and no quickie systems.

Another progenitor of poor emergency medical care is esprit de corps, a fine, high-sounding title for interdepartmental jealousy. "Our people are better than your people." "We don't like to get our uniforms bloody. They cost too much to clean so we wait for the ambulance driver to arrive." We spend our time instead measuring skidmarks, kicking broken glass into the gutter, and directing traffic, while the victim chokes to death in vomitus. This is esprit de corps at its finest. A blood brother of such esprit de corps is hospital chauvinism. "My hospital is bigger and better than yours; it has five hundred beds." "My hospital is better than yours because we don't go to the same church." "My hospital has university affiliation and yours doesn't."

Another ancestor is pride. "We already have the best in the state. Leave it alone; it is working. We don't need to be improved." This, in a sense, is a combination of apathy and chauvinism and is revealed in the haughtiness of local government officials when there is any suggestion that the present system could be improved.

And lastly there is ignorance. No one knows how bad the system is because no one ever tries to find out. No data are gathered; no reports are made; no complaints are voiced; no figures are published. Such ignorance is perhaps the saddest of all excuses for poor emergency care.

What should be our philosophy of emergency medical care? What guiding principles should we use? Brought to its conclusion, in my view, emergency medical care is more a sensible awareness than a "thing."

It is a series of beliefs and attitudes which, when held by all the people in an area, will result in a total system of emergency medical care (just as a commitment to law and order, when held by the citizens in an area, will result in a first-rate police and judicial system). An emergency medical care system will evolve when the basic techniques and attitudes of effective emergency medical care are taught from earliest childhood in the school system as part of preparation for living. When children are taught effective self-help according to the principles of good health, when they are introduced at an early age into the organization and functioning of an effective emergency medical care system, when they are taught how to ask for help or how to access the system, and when they are taught how to give help to their neighbors, then an effective total system will follow. This should be our goal. However, throughout most of the country, rather than starting at the grade school level, we have to start at the political level and work our way down. This must be done so that we at least put together a basic system from elements now in existence; through persistent public relations efforts and the use of the media, we then try to get the word to the people.

Until the granting of state and federal funds is contingent upon the development of an effective emergency system, each county will have to generate its own enthusiasm and its own answers to problems. This depends upon leadership. One cannot imagine a committee's leading the Rough Riders of the Spanish-American Civil War as they charged up San Juan Hill. They were led by Teddy Roosevelt, who swung his saber and charged up the hill with his men following. Emergency medical care will never be as dramatic as this, but somebody, some person, has to be the leader of this effort. Too many committee members come to meetings and never open the file until the next meeting. It takes somebody to get on the phone, day after day, to irritate, to browbeat, to encourage, to coordinate, to facilitate, and to motivate the various elements in a beginning emergency medical care system. Once the patterns have been established, then much of the work is self-generating and automatic. But during the initial efforts, success or failure depends upon the efforts of a person, not a committee.

ORGANIZATION

Emergency medical care is a community, not a medical, responsibility. The community reaction to this responsibility must be based upon the political elements in the community, such as the board of supervisors, the mayor, or the city council. Experience shows that there is a direct relationship between political interest and involvement and the effectiveness of the emergency medical care committee. Following the National Safety Act of 1966, whereby each county had to appoint an emergency medical care committee, many counties appointed two or three doctors as the committee and left them like castaways on a desert island, cut off from all input and all effective governmental and administrative help—a paper committee on a paper island, surrounded by a sea of apathy. Their success was zero. During its formative years in San Diego County, the Emergency Medical Care Committee had to do everything. It had to develop, evaluate, advise, and operate the beginning system. It operated only with volunteer help. However, as the system developed and with federal grant money, full-time paid staff were acquired, and the Emergency Medical Care Committee then achieved its correct role, which is to give advice on program development, evaluation, and assignment of responsibilities. The role of the full-time staff is established by local political bodies (Fig. 1-1).

Medical personnel can provide leadership and technical expertise; they cannot

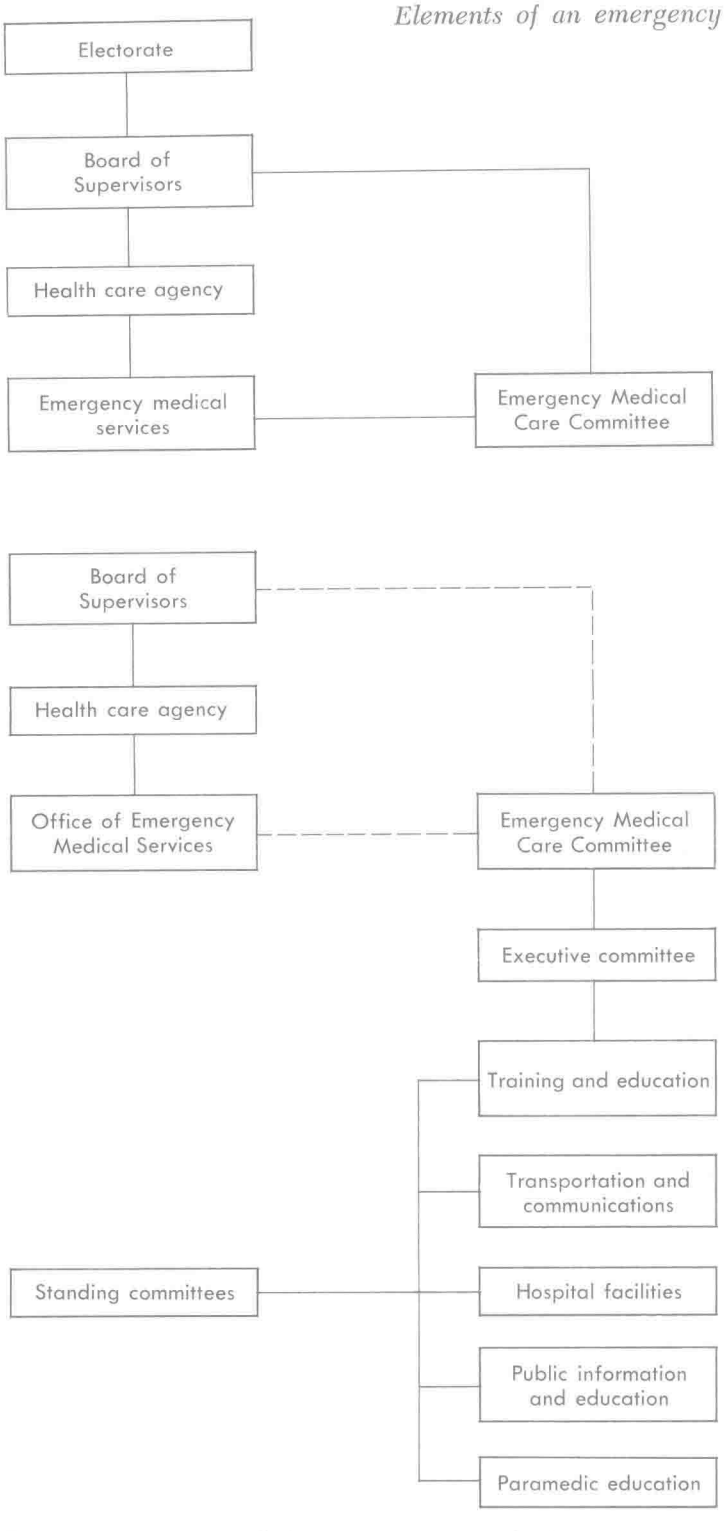

Fig. 1-1. Organizational chart, emergency medical services, San Diego County, January, 1977.

put together a system unless they act with the backing of the political elements in their area and within the limits of authority given them by the political leaders. The second most important element in developing a viable system, which must be immediately brought to bear, is the involvement of all agencies that have legitimate responsibilities in the provision of emergency medical services with the emergency medical care committee. This brings in virtually every element in the community. Approximately 24 separate elements exist in most organized communities:

- County government
- City government
- Law enforcement agencies
- Fire agencies
- Park and recreation departments
- Forestry services
- Military services
- Coast Guard (if applicable)
- Educational facilities (universities, community colleges, and so forth)
- Comprehensive health planning association
- Highway patrol
- Hospitals and health facilities
- Medical community and the various elements that have had historical interest in emergency medical care (that is, the Committee on Trauma of the American Academy of Orthopaedists, the Committee on Trauma of the American College of Surgeons, and the vital American College of Emergency Physicians)
- The nursing profession (and especially its Emergency Department Nurses' Association)
- The American Heart Association
- The American National Red Cross
- Consumer representation of responsible citizens who are knowledgeable of the needs of the community such as clergymen and local political leaders (There should be one representative on the committee from each of the geographic areas.)
- Emergency mental care associations and activities (a most important element, which needs to be part of the system, especially since the problems of drug addiction and drug overdose are so prevalent currently)
- Communication media
- Office of emergency services
- Search and rescue organizations
- Pharmaceutical industry
- Local telephone company

If all the agencies listed above are included, the committee will be large and unwieldy. However, to make the committee smaller by omitting some of these elements will rebuff many agencies and individuals who have great interest in serving. Therefore, as the committee grows, the need for an executive committee will become apparent. In San Diego County we have broken down the large committee and assigned individual members to subcommittees, which usually meet monthly; the chairmen of these subcommittees form the Emergency Medical Care Executive Committee. The big EMCC must meet quarterly to assist in policy development and planning, but the subcommittees meet as directed by the executive committee, with a minimum of quarterly meetings. For the first ten years the big committee met bimonthly, but with the increasing scope of the operation, the complexity of the system, and the size of the EMCC, it became unwieldly, and a more effective and flexible system was developed with the executive committee as its head.

The third essential for an effective system is professional administration. This system cannot be developed or operated on volunteer time. Although most committee members will donate time, they also have responsibilities to their own departments or agencies, their practices, their livelihoods and their families that will prevent them from devoting large portions of their time to the development of the system. Implicit in the acknowledgement by local government that an effective emergency medical care system is necessary is their willingness to appoint and pay for full-time, professional help. However, this is no job for the old political war horse waiting for retirement. Rather, it is a job for an energetic, young, innovative, professional public administrator who can see the rare opportunity to build a reputation, in the success of his efforts. Many programs now have medical directors who are experienced administrators.