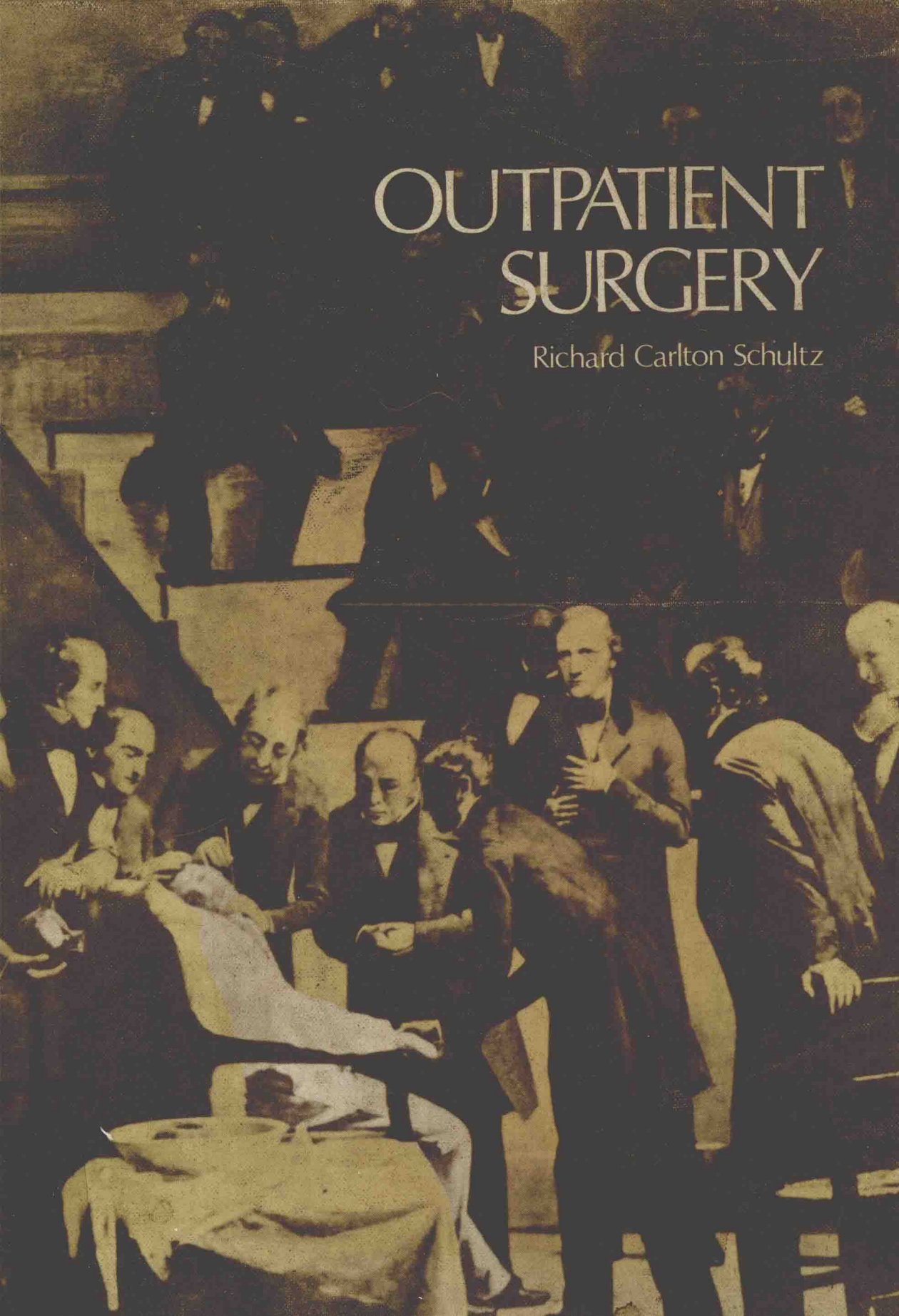

OUTPATIENT SURGERY

Richard Carlton Schultz

Outpatient Surgery

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WITH TWENTY-FOUR CONTRIBUTORS

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Outpatient Surgery

Preface

The beginnings of outpatient surgery undoubtedly precede recorded history. It is well documented in the earliest writings of antiquity and has made great strides during every great war. It waned somewhat in the United States from the 1920's through the mid-1960's as our large metropolitan hospital system was developing. Currently it is showing a marked resurgence due not only to almost prohibitive costs of hospitalization, but also to improved skills and increased interest among anesthesiologists. The ultimate potential of outpatient surgery, however, is still unknown.

We know that the practice of outpatient surgery develops slowly in communities where hospital beds are unfilled. However, in the hospital bed scarcity of the late 1960's the need arose again. In addition to the obvious financial savings from a nearly geometric rise in hospital costs, the concept has sound merit, surgically.

The resulting groundswell of interest in delivering safe surgical care in this manner has prompted this publication. Our objective is to present what is currently acceptable from the standpoint of anesthesia and the major surgical specialties and to describe briefly how this is done in a modern outpatient setting.

Opinions differ about whether this type of surgery is best done in a freestanding outpatient facility or in a separate section of a hospital. Valid arguments have been advanced in support of the various points of view. It has been found safe and effective in an office setting for selected operative procedures on selected patients. Physicians involved extensively in this type of care have largely concluded that it works best when space, personnel, and equipment are independent of other types of medical care.

We have learned that staggered scheduling in the hospital operating room suite, or the sharing of anesthesiologists, nursing personnel, and instruments from a pool in a general hospital eventually leads to frustration and discouragement with the outpatient surgical concept. Hospital priorities will always, appropriately, be weighted toward the "major case," the urgent cesarean section, and the bleeding emergency. Because of shortages of space, personnel, and equipment the "minor outpatient

case" will invariably be postponed when these two forms of surgery are scheduled together in the same unit. Just as frustrating has been the practice of allocating a draped-off portion of the emergency room for this type of surgery, sharing personnel and equipment.

It has become apparent that outpatient surgery is a separate entity that functions best independent of the many varied problems of the hospital's conventional surgical and emergency care. To succeed, it must respond to its own patients' needs and administrative requirements. Rewards for this success, however, are considerable as we shall show, both for the individual patient and the community.

We hope to develop, herein, the essence of what is required to make an outpatient surgical facility function safely, some of the nuances of what makes it succeed and what and how anesthesia and surgical procedures should be done there. This is not to imply that all problems have been completely resolved. There are still problems among each of the three major functioning units. In nursing, they are the problems of patients eating prior to surgery and the continuous need for more recovery room space. In anesthesia, they are the problems of nausea after surgery and postoperative analgesia. In surgery, the problem is postoperative bleeding. Progress, as we will show, is being made in solving each of these. Finally, in keeping with the current sociological atmosphere, the medicolegal aspects of outpatient surgery are identified by an attorney working exclusively with medical institutional law.

Just as this current decade has witnessed the exciting rebirth of outpatient surgery, I have personally been caught up in the crest of this enthusiasm. I have found the preparation of this book refreshing and hope the reader will find both the concept and the material presented as exhilarating as did I and the many distinguished contributors.

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Outpatient Surgery

SECTION I

Organization of an Outpatient Surgical Center

RICHARD CARLTON SCHULTZ

Outpatient Surgery From Antiquity to the Present

The history of outpatient surgery is inextricably interwoven with the history of medicine. It is in fact the very beginning of medicine as it was first recorded. Only later in recorded history do the descriptions of hospitals appear. Moreover, references to the early houses or temples where outpatient surgery was performed, have sometimes been translated as "hospitals"; thus, the history of outpatient surgery and hospitals is forever interrelated.

Medical Antiquity

Descriptions of the earliest hospitals and the practice and customs of medicine are found in the books of the Old Testament, the early Indian writings of the *Susrata* and *Charaka,* and the early Greek historians, Thucydides, Herodotus, and Xenophon. Additional information is obtained from scrolls and temple sculpture in Egypt (5000 B.C.).

In the earliest known scientific documentation of medical practice, the *Edwin Smith Surgical Papyrus,* (3000 B.C.)[1] treatment of the more minor injuries—flesh wounds, nasal fractures, mandibular fractures, and simple long bone fractures—is handled in a manner suggestive of modern outpatient surgical practice. Frequent use of absorbent lint and tampons or plugs of linen for bandaging and treating superficial injuries is mentioned. In treatment of the simplest flesh wounds the edges are drawn together by adhesive plaster strips. In a list of six "gaping wounds," the surgeon in each case charged, "thou shouldst draw together for him his gash with stitching." In some cases both stitching and adhesive plaster were employed in succession in the same wound. In managing bony injuries, dislocations, and fractures, realignment of the fracture and splinting are described. The use of "cartonnage" or linen impregnated with glue and plaster for extremity casts is essentially the same as the modern surgical cast for the support of fractured limbs.

Egyptian surgery was largely limited to fractures and minor surgery and did not include opening the body cavities. Medical treatment was usually given in the home,

but treatment was also available in the temples which functioned as outpatient facilities as well as hospitals.

India, as well as Egypt had crude houses to care for the sick and injured ("hospitals"). Hindu literature relates that in the sixth century B.C., Buddha appointed a physician for every ten villages and built hospitals for the crippled and for pregnant women (Fig. 1-1). Hospitals existed in Ceylon as early as 437 B.C.

The most notable of the early hospitals in India were 18 institutions built by King Asoka (273–232 B.C.). These are historically significant because of their similarity to outpatient facilities and hospitals today. Attendants functioning as nurses and orderlies prepared medicines, furnished food, and cared for the sick. Hindu physicians were excellent surgeons. They were required to keep themselves immaculately clean and respect confidentiality in dealing with their patients.[2]

In early Greek and Roman civilization, the temples of the gods were also used for outpatient surgery and hospitals. Their medical practices, as were those of the Egyptians, were replete with superstition and mysticism.[2] Nevertheless, the Greek temples were forerunners of the modern hospital, since they provided refuge for the sick. One of these sanctuaries, dedicated to Aesculapius, Greek god of medicine, is said to have existed as early as 1134 B.C. at Titanus. Ruins attest to the existence of another, more famous Greek temple built several centuries earlier at Epidaurus. In the temples inpatients and outpatients were ministered to in body and soul (Fig. 1-2).

The modern outpatient clinic seems to have originated in the first century of the Christian era, because Galen described "tabernae medicae," where only the ambulant sick were treated. During that period, medical care was closer to modern medicine than it was for the following 15 centuries.[2]

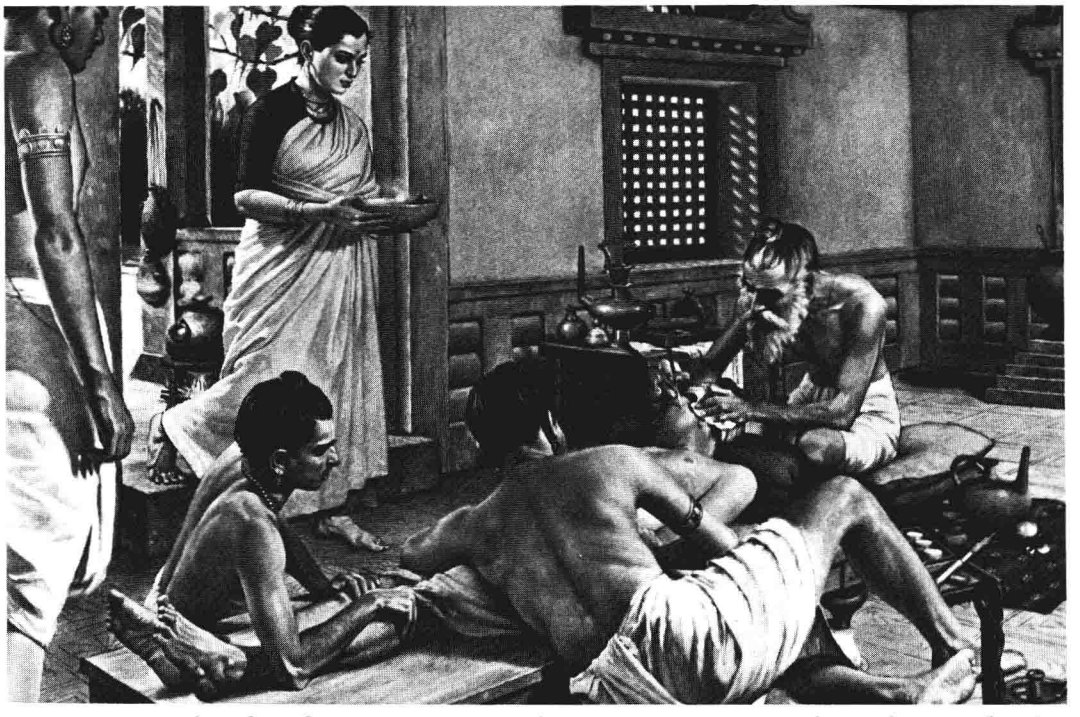

FIG. 1-1. *Susruta, famed Hindu surgeon (200 B.C. ?) beginning a plastic surgical procedure (otoplasty) on an outpatient basis. (From A History of Medicine, copyright 1957, Parke, Davis & Company.)*

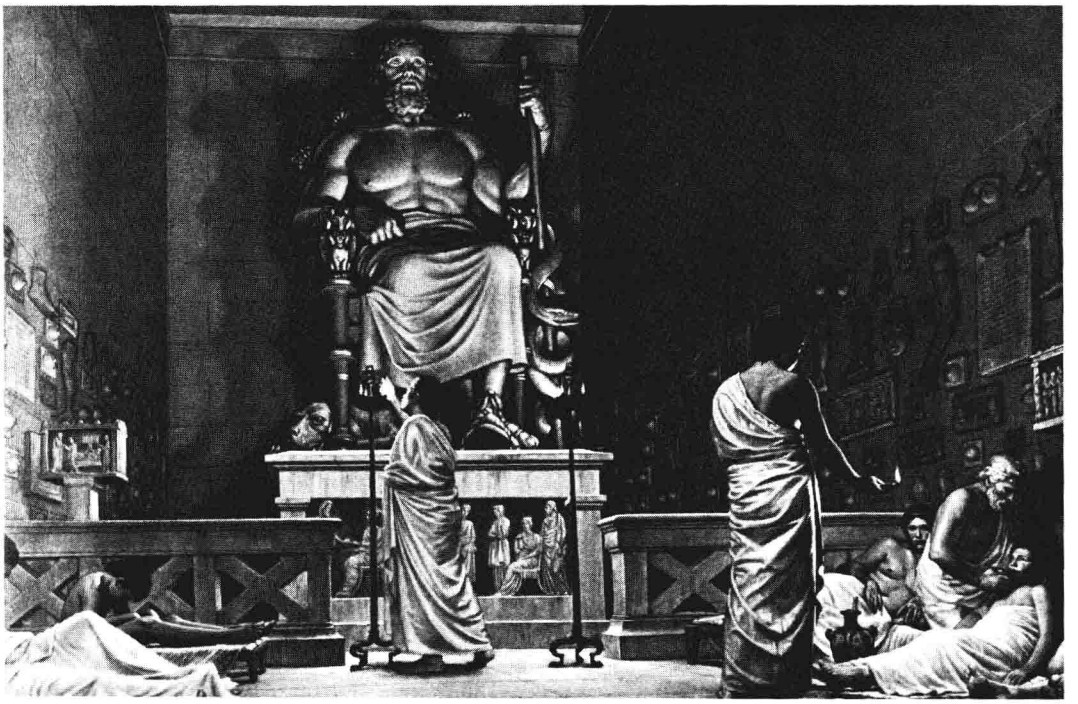

FIG. 1-2. *Greek temple and cult of Aesculapius provided both inpatient and outpatient care. (From A History of Medicine, copyright 1957, Parke, Davis & Company.)*

Medieval Hospitals

Records concerning hospitals and medical development of succeeding centuries up to the middle ages are scarce. It is likely that only a few hospitals flourished outside of Italian cities. Two of these were the Hôtel-Dieu of Lyons, France, opened in 542, and the Hôtel-Dieu of Paris founded in 660. Unfortunately, the medical precepts of the early Greek physicians were inexorably discarded in Europe because of their pagan origin, and mysticism once again became prominent. It was not until the Renaissance that Europe would advance again in the delivery of medical care.

The degree to which the hospital in the East Roman Empire, during the Middle Ages, progressed and tended to achieve a clear-cut institutional character is most sharply revealed by the organization of the important hospital attached to the Monastery of the Savior Pantocrator.[3] Among the five sections of the hospital, each for a different class of ailment, was an outpatient facility for ambulatory cases.[3] The medical staff was quite large. Each ward had no less than two physicians, three assistants, and several orderlies. Furthermore, two physicians, two surgeons and eight assistants provided care for ambulatory patients in the dispensary. In difficult cases, the chief physicians were called upon for consultation.

Both the Moslems who overran large parts of the Eastern Empire and the Europeans who came into contact with it on the Crusades or for commercial reasons were impressed and influenced by its hospitals. In the ninth and tenth centuries, A.D., there are records of some 34 hospitals in countries under Islamic rule. These hospitals were generally well-organized, and reflected the high state of development attained by medicine in Moslem lands.[3]

The hospital as a concept and as an institution developed much more slowly in