

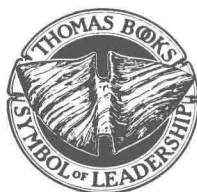
Resuscitation and Anesthesia *for* Wounded Men

The Management of Traumatic Shock

by

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Resuscitation and Anesthesia
for Wounded Men

To

CHARLES HOYT BURNETT, M.D.

And the memory of

PAUL SCOTT HANSEN, M.D.

Good Physicians

Good Friends

Italy, 1943-1945

Preface

The background of this account is wholly military; but the family automobile in a crash can produce wounds that mimic those of warfare; therefore little transposition of the details and no changes in the principles recounted here are necessary to apply this material to civil practice. For such reasons the papers which serve as the basis for this book have been compiled and issued together. Moreover, if war should come again, the civilian as well as the soldier will be in the thick of it. Here, material may be found on how to achieve a given result with economy of material, how to guide resuscitation on a mass scale.

This small book has been prepared with scissors and a pot of glue. Hardly at all with a pen. It is almost entirely a compilation of articles I wrote during the war on the care of the patient, rather specialized care of a particular kind of patient. Much has been written on the care of the wounded; but there is curiously little on the crucial interval that exists from the time the enemy's missile strikes until the surgeon repairs the wound. It is in this period that the wounded soldier's struggle for life is most acute. This book deals with the patient's care during this critical period.

Several innovations in the resuscitation of the wounded will be described. It should be pointed out that in every case these, as well as all new general practices, had their beginnings in observations on single patients, then on small, carefully observed groups, and finally on masses of the wounded. When large numbers were involved, the validity of our practices was constantly checked by sampling. Unquestionably, careful firsthand examination of even relatively small groups by an interested and informed and impartial observer gave far more reliable information than did large volumes of data obtained by military order from the whole Theater.

I wish I knew enough to write the missing section on *Resuscitation of Masses of the Population Suffering from Radiation*, nor can I write the needed chapter on *Resuscitation under Conditions of Great Cold* (although up in the Apennines we thought we could qualify for this). Resuscitation of those wounded in Arctic and Antarctic maneuvers will require a special section, which I hope someone else will write. To be

included here it would have to be based upon firsthand observation.

Possibly some may wish to read this account of the care of the wounded in conjunction with the material of different type contained in our group study of *The Physiological Effects of Wounds*. Both kinds of information are necessary for an understanding of the problems encountered.

As I reread in Boston what I wrote on the muddy hillside before Cassino and later on the Anzio Beachhead, the writing seems overwrought. It seems to need revision. And yet, I suspect that the original text of the papers contained here gives a more accurate picture of the situation than could be achieved under present comfortable conditions. So they remain as they were, edited only enough to smooth the transition from one subject to another.

I cannot cut off these remarks without some comment on a fact which will always seem amazing to me; namely, that in the midst of the bitterly contested battles that made up the Campaign in the Mediterranean, that there where shortage of everything was the rule, the Army (said to be inflexible in matters of individual freedom) could give to an officer of relatively low rank, the unrestricted opportunity necessary to make the observations recorded here. I should like to express my appreciation to the very many officers of the Army Medical Corps who made this possible. I should like to speak of them all; but since this is impossible, two must be mentioned: Colonel William S. Stone, M.C., U.S.A., who gave support at every turn and whose broad vision never included any false obstacles in the way of getting a job done that needed doing; and Colonel Edward D. Churchill, M.C., A.U.S., my Chief in war as well as in peacetime, who never gave me any orders, but who did give me an extraordinary opportunity to learn what I was able to and to accomplish what I could in the clinic that stretched 2000 miles, from Casablanca to Trieste.

The Massachusetts General Hospital

Henry K. Beecher

It is extraordinary how many rumors there are, both at Army Headquarters and in the Field. The political rumors can all be disregarded; medical rumors, usually called "clinical impressions," are more dangerous. They are seriously misleading. However much they be disclaimed, they are a constant subtle threat to sound judgment. A sea of clinical impressions grows from the evacuation streams of patients. It covers the facts. Under military circumstances the most urgent things, and the most difficult to get, are facts. To fish them out of this sea of clinical impressions requires an angler of patience and endurance and skill, if he is to be successful. Here is the main job of the consultant. It is the hardest one he can have.

Extract from notebook, Algiers, September 30, 1943.

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Speed in Forward Evacuation and Preparation for Surgery is Urgent
The Most Efficient Resuscitation is Preventive
Resuscitation Should be Graded
If Blood Transfusion will be Delayed. If Operation will be Delayed. If Surgery is Available.

Complete Restoration to Normal of Blood Volume
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