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Abstract from the Literature

by
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Trunkey DD. History and development of trauma care in the United States. Clin Orthop 2000 May;(374):36-46.

Until recently the development of systems for trauma care in the United States has been inextricably linked to wars. During the Revolutionary War trauma care was based on European trauma principles particularly those espoused by the Hunter brothers. Surgical procedures were limited mostly to soft tissue injuries and amputations. The American Civil War was remarkable because of the contributions that were made to the development of systems for trauma care. The sheer magnitude of casualties required extensive infrastructure to support the surgeons at the battlefield and to care for the wounded. For the first time in an armed conflict, anaesthetics were used on a routine basis. Despite these major contributions, hospital gangrene was a terrible problem and was the cause of many mortalities. World War I and World War II were noteworthy because of the contributions made by surgeons in the use of blood. One of the major lessons of World War II was the emphasis of how frequently lessons have to be relearned regarding the treatment and care of wounds. Between the Korean Conflict and the Vietnam War the discovery was made of the tremendous fluid shifts into the cell after severe hemorrhagic shock. As a consequence, the treatment of patients with shock was altered during the Vietnam Conflict, which resulted in better outcomes and less renal failure. The first trauma centers for civilians were started in the United States in 1966. Since 1988 the number of states with mature trauma systems has expanded from two to 35. During the same period, many studies have documented the efficacy of trauma systems in reducing unnecessary mortality and disability.

Comment: *Trunkey has provided a good review of the development of trauma care and its integral linking to military medicine and surgery. The civilian trauma centres may be able to repay some of that debt by research and development of new therapies.*

Pearn J. Medical ethics surveillance in the Armed Forces. Mil Med 2000; 165(5): 351-4

Modern defense services depend on a policy of the vigorous promotion of research to ensure that they retain an advantage in any future operational context. Research involving personnel within the armed forces, however, has certain constraints with respect to contemporary, best-practice medical ethics. Service members are one example of a class of "captive subjects" who require special protection in the context of medical research. (Prisoners, students, children, and the intellectually disabled are other such examples.) The majority of national defense forces now have ethical watchdog groups-- institutional ethics committees--that oversee research involving service members. Such groups monitor the special considerations and constraints under which subjects in uniform can volunteer for biological research. These committees audit particularly the ethical themes of confidentiality, equality, and justice. Themes inherent in medical research in the military include the standard Beauchamp-Childress paradigm of autonomy, beneficence, nonmaleficence, and justice, to which are added the traditional military values of loyalty, respect, courtesy, and chivalry. Contemporary thinking is that the general principle of affording service members the opportunity to volunteer for research should be maintained within the constraints of compromised training time, national security, and operational necessity. Most biological research (and its outcome) does not in practice compromise confidentiality or military security. This paper presents an audit of the functioning of one national military medical ethics committee, the Australian Defence Medical Ethics Committee,

and presents a discussion of its philosophies and influence within the broader military context. The Australian Defence Medical Ethics Committee believes that most research should, as a prior condition of approval, be intended for open publication in peer-reviewed journals.

Comment: *An important review of ADMEC by the SGADF (and the AM.MA patron). Further information on ADMEC is at Page 8*