

Damage Control Resuscitation

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Abstract

Damage control surgery is a combination of temporizing surgical interventions to arrest hemorrhage and control infectious source, with goal directed resuscitation to restore normal physiology. The convention of damage control surgery largely arose following the discovery of the lethal triad of hypothermia, acidosis, and coagulopathy, with the goal of Damage Control Surgery (DCS) is to avoid the initiation of this “bloody vicious cycle” or to reverse its progression. While hypothermia and acidosis are generally corrected with resuscitation, coagulopathy remains a challenging aspect of DCS, and is exacerbated by excessive crystalloid administration. This chapter focuses on resuscitative principles in the four settings of trauma care: the prehospital setting, emergency department, operating room, and intensive care unit including historical perspectives, resuscitative methods, controversies, and future directions. Each setting provides unique challenges with specific goals of care.

Key words: resuscitation, transfusions, plasma, blood, whole blood, thoracotomy, REBOA