Trauma Hemostasis and Oxygenation Research Network position paper on the role of hypotensive resuscitation as part of remote damage control resuscitation

Woolley, Thomas, MD; Thompson, Patrick; Kirkman, Emrys, PhD; Reed, Richard; Ausset, Sylvain, MD; Beckett, Andrew, MD; Bjerkvig, Christopher, MD; Cap, Andrew, P., MD, PhD; Coats, Tim, MD; Cohen, Mitchell, MD; Despasquale, Marc; Dorlac, Warren, MD; Doughty, Heidi; Dutton, Richard, MD; Eastridge, Brian; Glassberg, Elon, MD; Hudson, Anthony; Jenkins, Donald, MD; Keenan, Sean, MD; Martinaud, Christophe, PhD; Miles, Ethan; Moore, Ernest, MD; Nordmann, Giles; Prat, Nicolas, PhD; Rappold, Joseph, MD; Reade, Michael, C., MBBD D Phil; Rees, Paul, MD; Rickard, Rory, PhD; Schreiber, Martin, MD; Shackelford, Stacy, MD; Skogran Eliassen, Håkon; Smith, Jason, MD; Smith, Mike, PhD; Spinella, Philip, MD; Strandenes, Geir, MD; Ward, Kevin, MD; Watts, Sarah, PhD; White, Nathan, MD; Williams, Steve

Journal of Trauma and Acute Care Surgery: June 2018 - Volume 84 - Issue 6S - p S3–S13
doi: 10.1097/TA.0000000000001856
Thor 2018

Abstract

ABSTRACT The Trauma Hemostasis and Oxygenation Research (THOR) Network has developed a consensus statement on the role of permissive hypotension in remote damage control resuscitation (RDCR). A summary of the evidence on permissive hypotension follows the THOR Network position on the topic. In RDCR, the burden of time in the care of the patients suffering from noncompressible hemorrhage affects outcomes. Despite the lack of published evidence, and based on clinical experience and expertise, it is the THOR Network's opinion that the increase in prehospital time leads to an increased burden of shock, which poses a greater risk to the patient than the risk of rebleeding due to slightly increased blood pressure, especially when blood products are available as part of prehospital resuscitation.

The THOR Network's consensus statement is, "In a casualty with life-threatening hemorrhage, shock should be reversed as soon as possible using a blood-based HR fluid. Whole blood is preferred to blood components. As a part of this HR, the initial systolic blood pressure target should be 100 mm Hg. In RDCR, it is vital for higher echelon care providers to receive a casualty with sufficient physiologic reserve to survive definitive surgical hemostasis and aggressive resuscitation. The combined use of blood-based resuscitation and limiting systolic blood pressure is believed to be effective in promoting hemostasis and reversing shock."

From the Academic Department of Military Anaesthetics and Critical Care (T.W.), Royal Centre for Defence Medicine, Birmingham, United Kingdom; UK Paramedic (P.T.), THOR Steering Committee, Scotland; Combat Casualty Care (E.K.), Medical & Trauma Sciences, Defence Science and Technology Laboratory, Wiltshire; 16 Medical Regiment (R.R.), Colchester, United Kingdom; Anaesthesia and Intensive Care (S.A.), Val de Grâce Military Academy, Paris, France; Royal Canadian Medical Services (A.B.), McGill University, Montreal, Canada; Department of Anaesthesia and Intensive Care (C.B.), Haukeland University Hospital, Bergen, Norway; Coagulation and Blood Research (A.C.), US Army Institute of Surgical Research, San Antonio, Texas; Emergency Medicine (T.C.), University of Leicester, Leicester, United Kingdom; Surgery (M.C.), University of Colorado School of Medicine, Aurora; Paramedic NREMT (M.D.); Trauma/Acute Care Surgery (W.D.), University of Colorado Health, Denver, Colorado; Transfusion Medicine (H.D.), NHS Blood and Transplant, Watford, United