

Haemostatic resuscitation is the  
gold standard in acute trauma care

Injury 2014

The GREAT DEBATE!





DAVID EMMERSON 2011

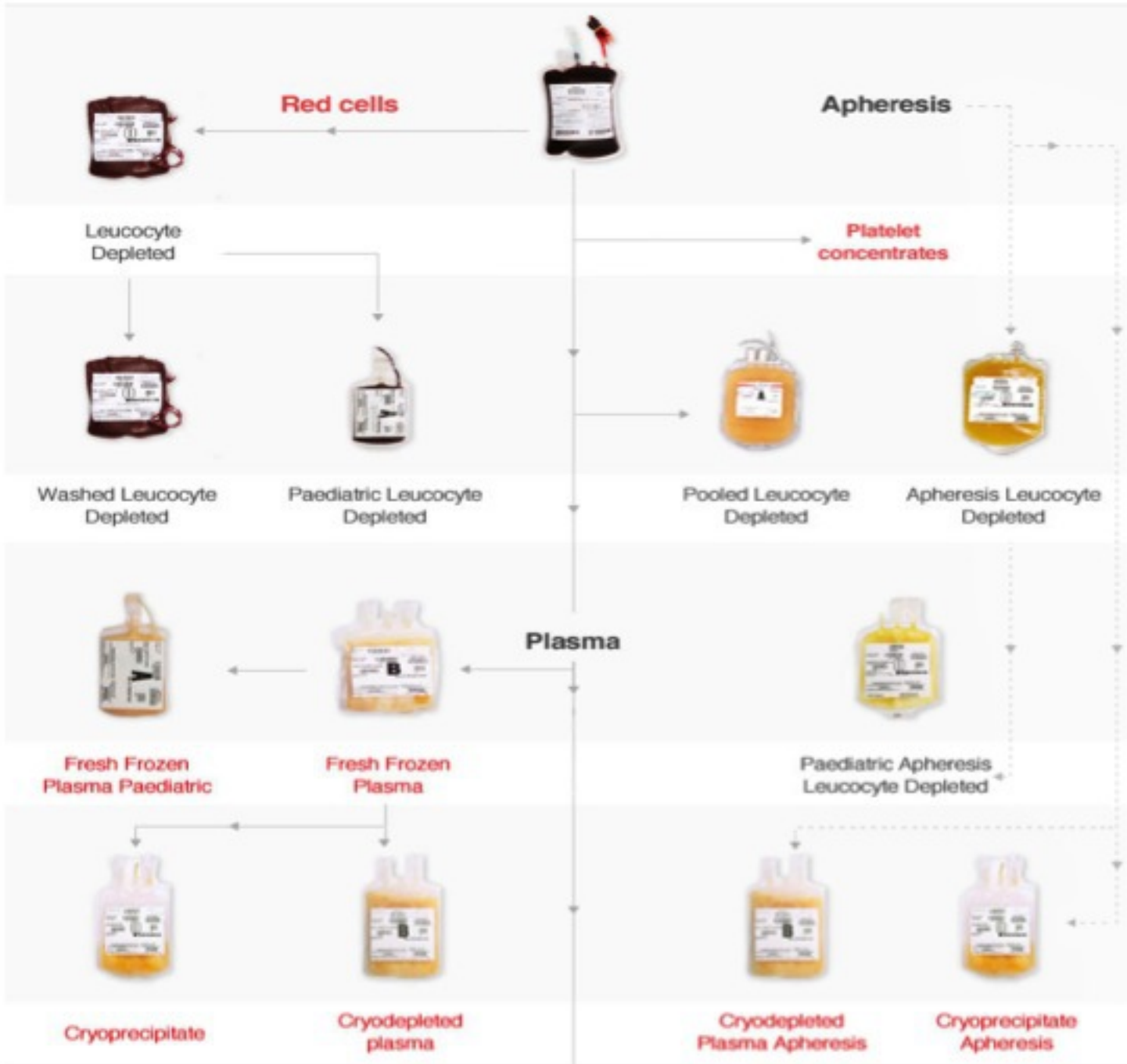
ARTCORE 15.74







### Whole blood







# Early Coagulopathy Predicts Mortality in Trauma

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## **Damage Control Resuscitation: Directly Addressing the Early Coagulopathy of Trauma**

*John R. Holcomb, MD, FACS, Don Jenkins, MD, FACS, Peter Rhee, MD, FACS, Jay Johannigman, MD, FS, FACS, Peter Mahoney, FRCA, RAMC, Sumera Mehta, MD, E. Darrin Cox, MD, FACS, Michael J. Gehrke, MD, Greg J. Beilman, MD, FACS, Martin Schreiber, MD, FACS, Stephen F. Flaherty, MD, FACS, Kurt W. Grathwohl, MD, Phillip C. Spinella, MD, Jeremy G. Perkins, MD, Alec C. Beckley, MD, FACS, Neil R. McMullin, MD, Myung S. Park, MD, FACS, Ernest A. Gonzalez, MD, FACS, Charles E. Wade, PhD, Michael A. Dubick, PhD, C. William Schwab, MD, FACS, Fred A. Moore, MD, FACS, Howard R. Champion, FRCS, David B. Hoyt, MD, FACS, and John R. Hess, MD, MPH, FACP*



326%  
Increased  
Risk of

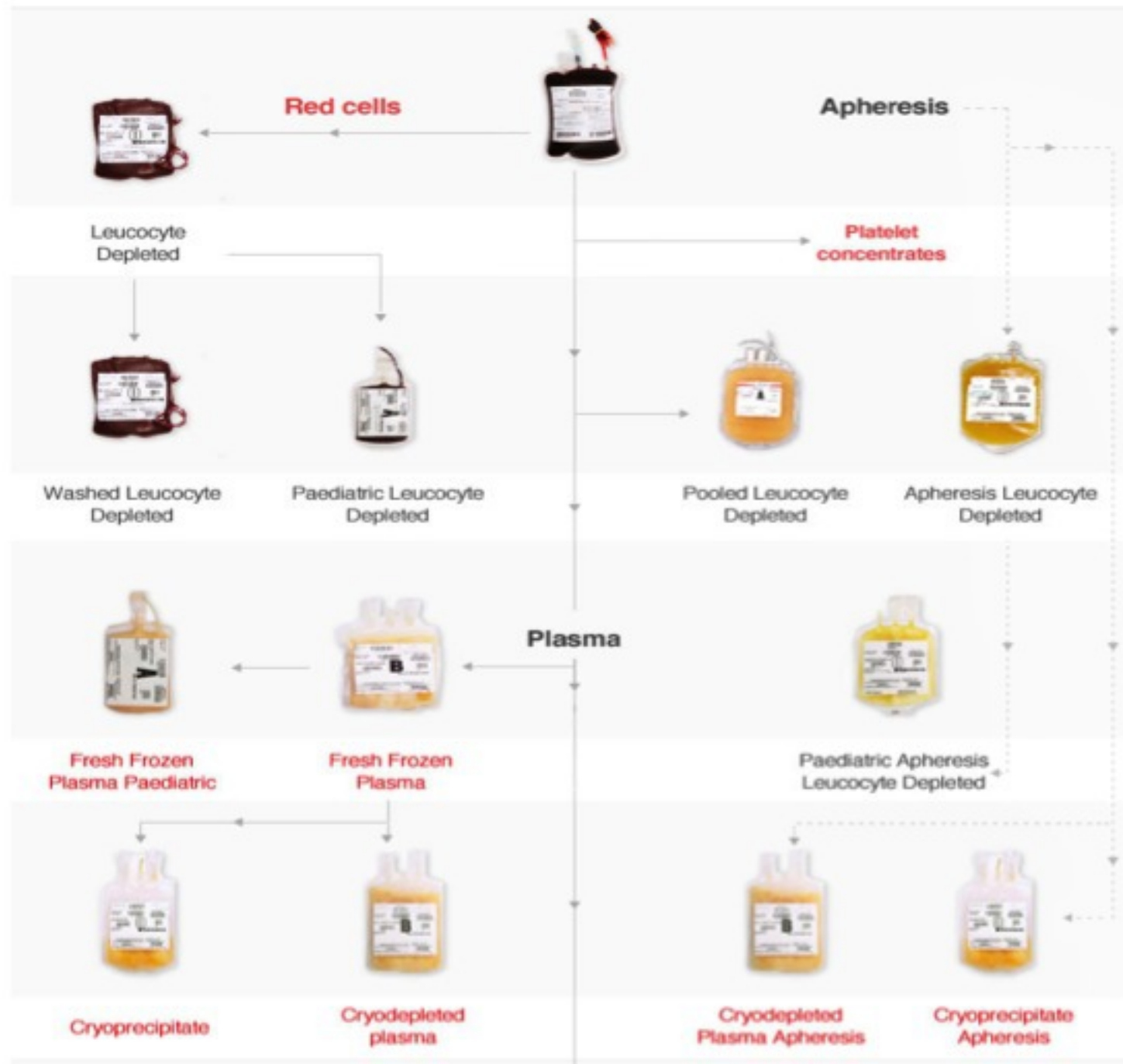




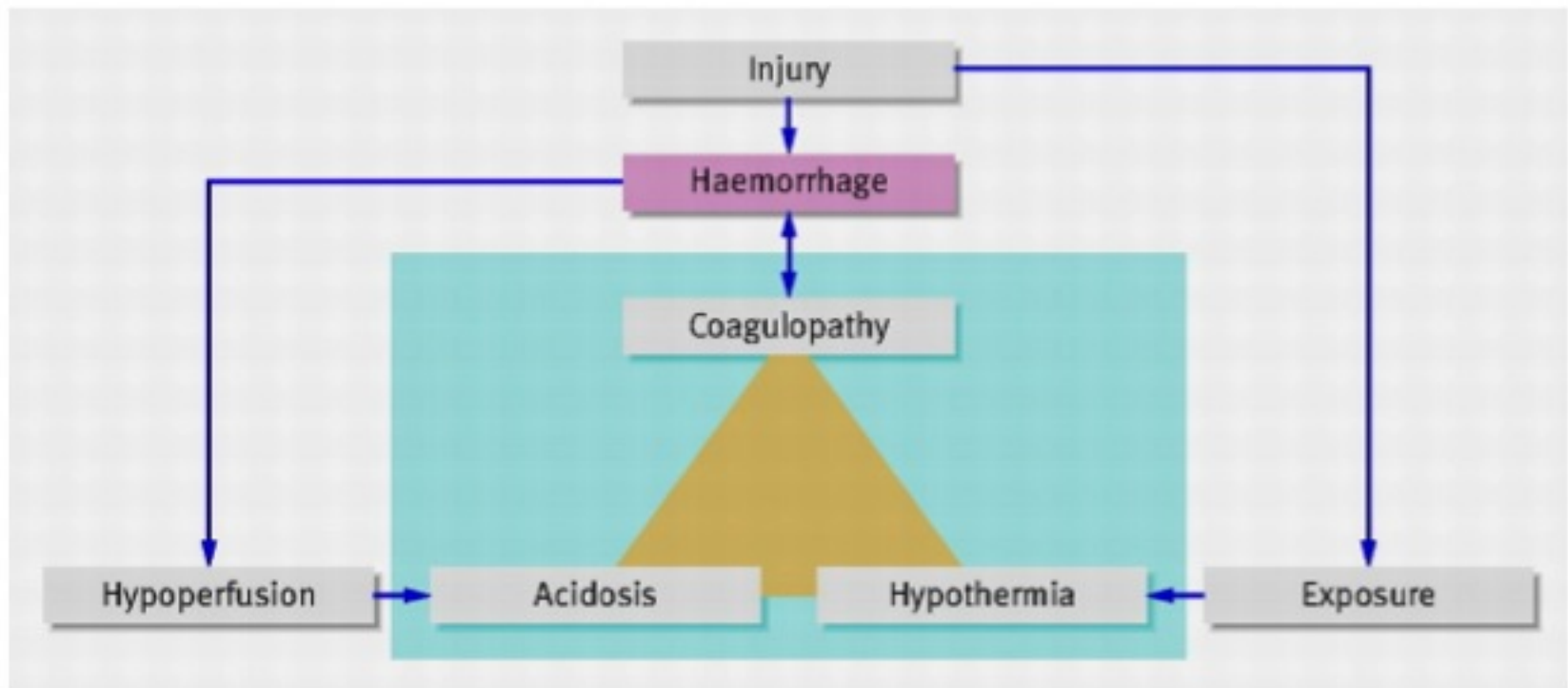




# Whole blood



**Fig 1 The “lethal triad” of acidosis, hypothermia, and coagulopathy.**



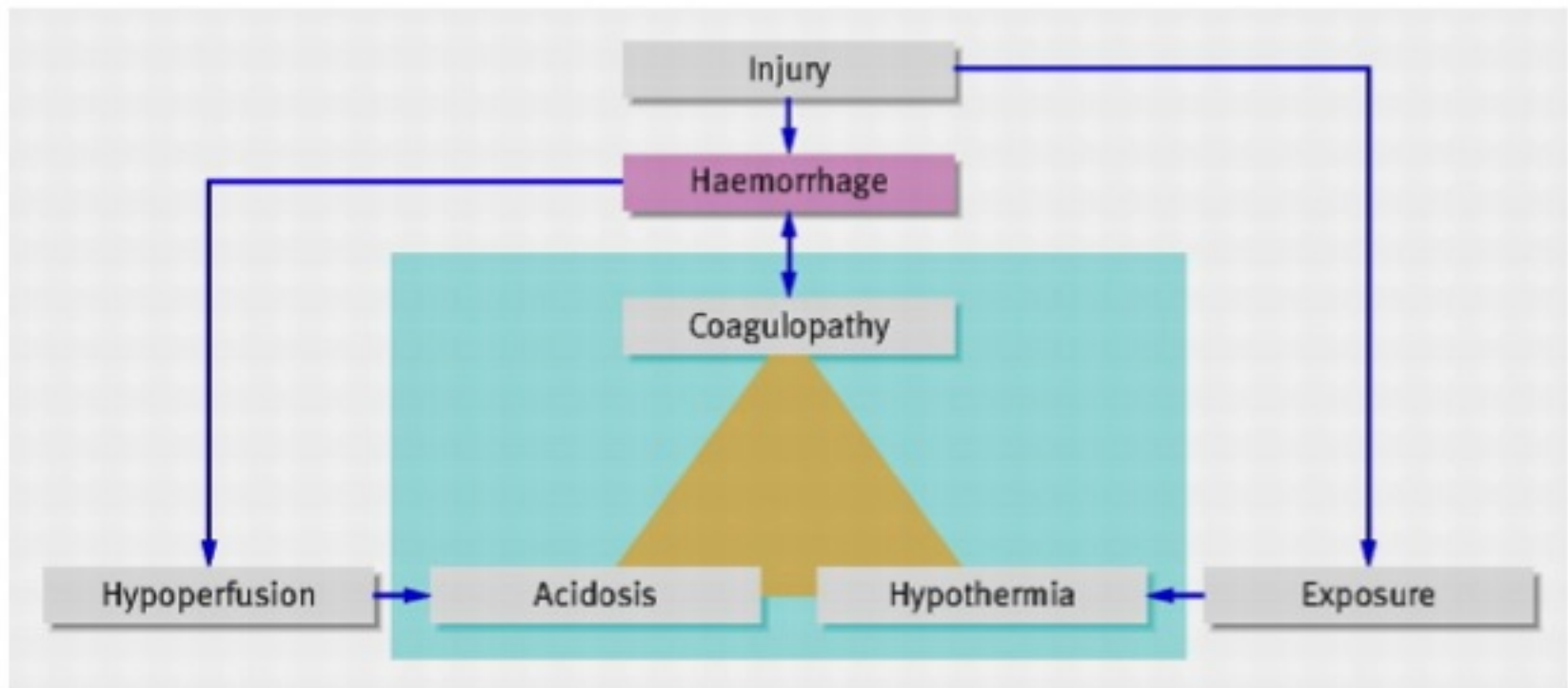
Jansen J O et al. BMJ 2009;338:bmj.b1778

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**Fig 1 The “lethal triad” of acidosis, hypothermia, and coagulopathy.**



Jansen J O et al. BMJ 2009;338:bmj.b1778

# Pretrauma Center Red Blood Cell Transfusion Is Associated With Reduced Mortality and Coagulopathy in Severely Injured Patients With Blunt Trauma

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