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Highlights of Resuscitation Trials at UCMC

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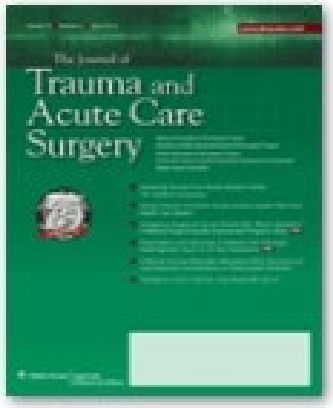

Shorter times to packed red blood cell transfusion are associated with decreased risk of death in traumatically injured patients

Elizabeth K. Powell, MD, William R. Hinckley, MD, Adam Gottula, Kimberly W. Hart, MA, Christopher J. Lindsell, PhD, *and* **Jason T. McMullan, MD**, *Cincinnati, Ohio*

Conclusion: In this study, delays in time to pRBC administration of as short as 10 minutes were associated with increased odds of death for patients receiving ultra-early pRBC transfusion.

The Prospective, Observational, Multicenter, Major Trauma Transfusion (PROMMTT) Study

Comparative Effectiveness of a Time-Varying Treatment With Competing Risks

John B. Holcomb, MD; Deborah J. del Junco, PhD; Erin E. Fox, PhD; Charles E. Wade, PhD; Mitchell J. Cohen, MD; Martin A. Schreiber, MD; Louis H. Alarcon, MD; Yu Bai, MD, PhD; Karen J. Brasel, MD, MPH; Eileen M. Bulger, MD; Bryan A. Cotton, MD, MPH; Nena Matijevic, PhD; Peter Muskat, MD; John G. Myers, MD; Herb A. Phelan, MD, MSCS; Christopher E. White, MD; Jiajie Zhang, PhD; Mohammad H. Rahbar, PhD; for the PROMMTT Study Group

Conclusions: Higher plasma and platelet ratios early in resuscitation were associated with decreased mortality in patients who received transfusions of at least 3units of blood products during the first 24 hours after admission.

Original Investigation

Transfusion of Plasma, Platelets, and Red Blood Cells in a 1:1:1 vs a 1:1:2 Ratio and Mortality in Patients With Severe Trauma

The PROPPR Randomized Clinical Trial

John B. Holcomb, MD; Barbara C. Tilley, PhD; Sarah Baraniuk, PhD; Erin E. Fox, PhD; Charles E. Wade, PhD; Jeanette M. Podbielski, RN; Deborah J. del Junco, PhD; Karen J. Brasel, MD, MPH; Eileen M. Bulger, MD; Rachael A. Callcut, MD, MSPH; Mitchell Jay Cohen, MD; Bryan A. Cotton, MD, MPH; Timothy C. Fabian, MD; Kenji Inaba, MD; Jeffrey D. Kerby, MD, PhD; Peter Muskat, MD; Terence O'Keeffe, MBChB, MSPH; Sandro Rizoli, MD, PhD; Bryce R. H. Robinson, MD; Thomas M. Scalea, MD; Martin A. Schreiber, MS; Deborah M. Stein, MD; Jordan A. Weinberg, MD; Jeannie L. Callum, MD; John R. Hess, MD, MPH; Nena Matijevic, PhD; Christopher N. Miller, MD; Jean-Francois Pittet, MD; David B. Hoyt, MD; Gail D. Pearson, MD, ScD; Brian Leroux, PhD; Gerald van Belle, PhD; for the PROPPR Study Group

CONCLUSIONS AND RELEVANCE Among patients with severe trauma and major bleeding, early administration of plasma, platelets, and red blood cells in a 1:1:1 ratio compared with a 1:1:2 ratio did not result in significant differences in mortality at 24 hours or at 30 days

TAP
TRAUMA AND PCC STUDY

- Study of traumatically injured adults requiring massive transfusion
- 90 Hospitals
- ~1400 patients
- Stopped at interim analysis for futility

LiTES

TOWAR Trial

- Type O whole blood and assessment of AGE during prehospital resuscitation trial
- Comparison of traumatically injured adults in hemorrhagic shock receiving prehospital whole blood vs. standard of care
  - UC AirCare has had transfusion capabilities for 40 years
- 10 sites
- ~1000 patients to be enrolled

TROOP

Trauma Resuscitation with Low-Titer Group O Whole Blood Or Products

Funded by the National Heart, Lung, and Blood Institute (NHLBI)

- Whole blood vs. components in trauma patients with hemorrhagic shock requiring massive transfusion
- 14 sites
- 1100 patients

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