

EMERGENCY MEDICINE LOMA LINDA UNIVERSITY

TRANSFUSION GOING WRONG?

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OBJECTIVES

- Detail the appropriate transfusion ratios and other interventional components involved in a massive transfusion scenario.
- Describe the common transfusion reactions and how to respond to each.
- Identify and respond to acute cardiopulmonary decompensation during transfusion.

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MASSIVE TRANSFUSION

GI Trauma

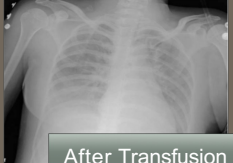
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TIMING OF PROBLEMS

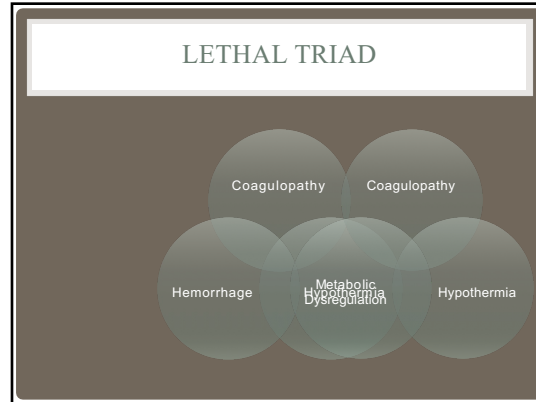


During Transfusion



After Transfusion

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COAGULOPATHY

The Ratio of Blood Products Transfused Affects Mortality in Patients Receiving Massive Transfusions at a Combat Support Hospital

The Use of Higher Platelet:RBC Transfusion Ratio in the Acute Phase of Trauma Resuscitation: A Systematic Review*

The Prospective, Observational, Multicenter, Major Trauma Transfusion (PROMMTT) Study
 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
 Damage control resuscitation in patients with severe traumatic hemorrhage: A practice management guideline from the Eastern Association for the Surgery of Trauma

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COAGULOPATHY

A new definition for massive transfusion in the modern era of whole blood resuscitation

Parker Hu¹ | Rindi Uhlisch² | Jonathan Black¹ | Jan O. Jansen¹ | Jeffrey Kerby³ | John B. Holcomb³

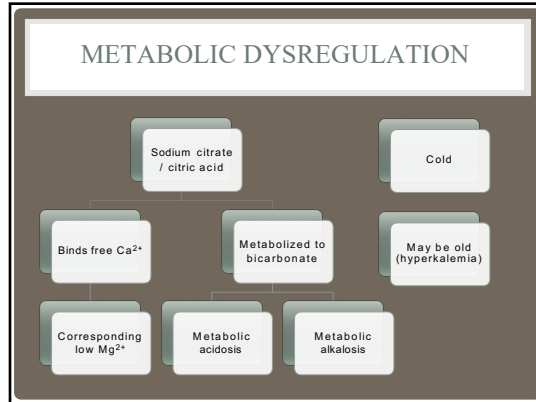
Re-introducing whole blood for transfusion: considerations for blood providers

Tor A. Hervig¹ | Heidi A. Doughty² | Rebecca A. Cardigan³ | Torunn O. Apelseth⁴ | John R. Hess⁵ | Femke Noorman⁶ | Miloš Bohoněk⁷ | Mark H. Yazer⁸ | Jia Lu⁹ | Silvano Wendel¹⁰ | Rosemary L. Sparrow¹¹ | Biomedical Excellence for Safer Transfusion Collaborative

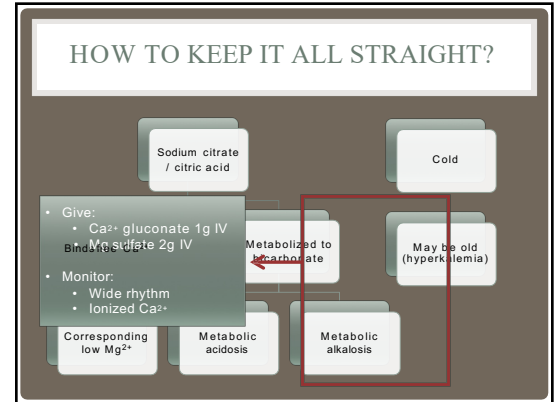
WHOLE BLOOD IN TRAUMA: A REVIEW FOR EMERGENCY CLINICIANS

CPT Wells Weymouth, MD, MC, USA,* | CPT Brit Long, MD, USA,† | Alex Koyfman, MD,† and Christopher Winckler, MD, LP,‡§

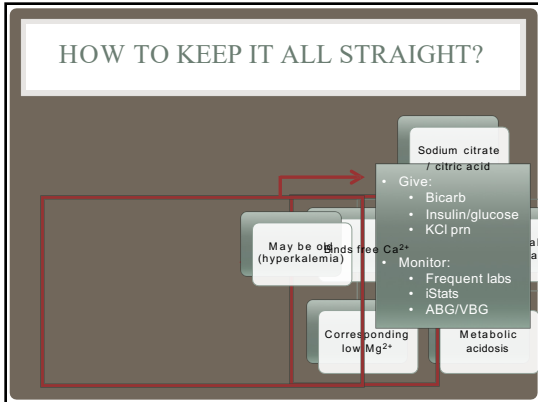
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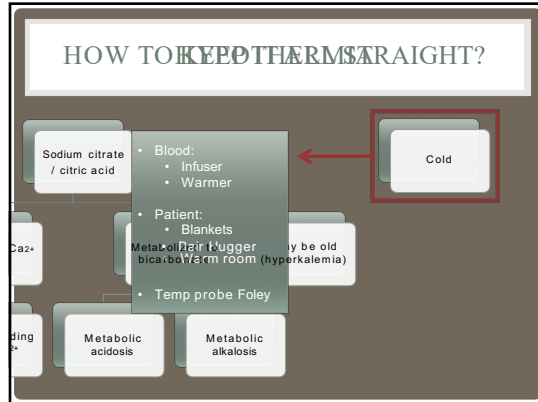
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TRANSFUSION REACTION

Hemolytic	<ul style="list-style-type: none">• Recipient Abs - donor RBCs• IVF, pressors
Febrile	<ul style="list-style-type: none">• Recipient Abs - donor leukocytes• Anti-pyretics, self-limited
Allergic	<ul style="list-style-type: none">• Immune reaction - donor plasma• Antihistamines, ?anaphylaxis

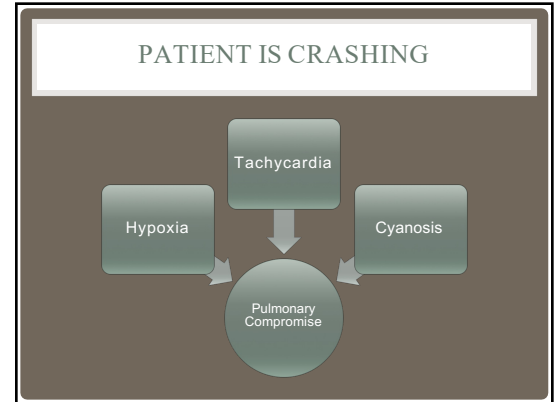
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2 GROUPS OF PROBLEMS

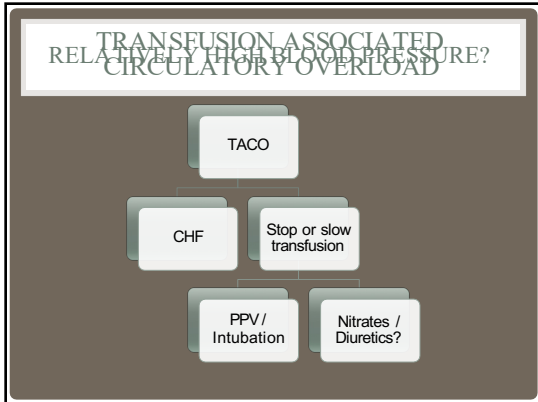
During Transfusion

After Transfusion

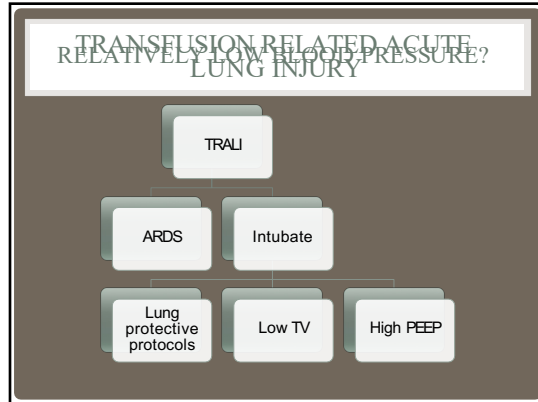
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