Shock. 2014 May;41 Suppl 1:39-43

Prehospital use of plasma: the blood bankers' perspective.

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Abstract:

At the 2013 Traumatic Hemostasis and Oxygenation Research Network's Remote Damage Control Resuscitation symposium, a panel of senior blood bankers with both civilian and military background was invited to discuss their willingness and ability to supply prehospital plasma for resuscitation of massively bleeding casualties and to comment on the optimal preparations for such situations. Available evidence indicates that prehospital use of plasma may improve remote damage control resuscitation, although level I evidence is lacking. This practice is well established in several military services and is also being introduced in civilian settings. There are few, if any, clinical contraindications to the prehospital use of plasma, except for blood group incompatibility and the danger of transfusion-induced acute lung injury, which can be circumvented in various ways. However, the choice of plasma source, plasma preparation, and logistics including stock management require consideration. Staff training should include hemovigilance and traceability as well as recognition and management of eventual adverse effects. Prehospital use of plasma should occur within the framework of clinical algorithms and prospective clinical studies. Clinicians have an ethical responsibility to both patients and donors; therefore, the introduction of new clinical capabilities of transfusion must be safe, efficacious, and sustainable. The panel agreed that although these problems need further attention and scientific studies, now is the time for both military and civilian transfusion systems to prepare for prehospital use of plasma in massively bleeding casualties.