Hemorrhage Control and Resuscitation

Cryopreserved Platelets (CPP) Phase 1 Safety Trial Successfully Completed

Platelets are a vital component for treatment of severe bleeding but cannot be reliably supplied in liquid form to the battlefield, nor can they be fully pathogen tested prior to transfusion. From 2001-2011 up to 26 percent (~1,075 deaths) of total pre- Military Treatment Facility combat deaths may have been potentially survivable and 91 percent of these were due to hemorrhage. CPP will be fully pathogen tested and will potentially allow treatment closer to the point of injury (further forward on the battlefield). The US Army Medical Materiel Development Activity (USAMMDA) completed enrollment of the CPP multi-site dose escalation Phase 1 safety trial on 12 July 2016. The successful Phase 1 safety trial compared CPP to the current standard of care, room temperature liquid stored platelets, in thrombocytopenic cancer patients. A Phase 2 efficacy study is expected to start enrollment in fiscal year 2017 (FY17). The US Army Institute of Surgical Research (USAISR) is conducting studies of treatment of combined blast/hemorrhage with complement inhibitors in animal models under Defense Health Program (DHP) funding.