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Rewriting the future of healthcare

CLEARPLASMA A NOVEL TREATMENT FOR MASSIVE BLEEDING

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Massive bleeding is a life threatening condition responsible for more than 35% of pre-hospital deaths and over 40% of deaths within the first 24 hours, second only to the rates of death due to severe central nervous system injury. To date, there are a limited number of effective treatments that are able to halt massive bleeding and prevent additional complications. ClearPlasma™ is an innovative filtration system that modifies human plasma and enhancing its capabilities to treat massive bleeding. By extracting plasminogen from the plasma, an important protein responsible for dissolving blood clots, ClearPlasma™ enhances coagulation and favours haemostasis. ClearPlasma™ transforms blood plasma through a sophisticated filtration system based on chemical adhesion. It is a disposable filter that can be incorporated either in Apheresis systems (online) or regular plasma bags (offline), and is inert to the common clinical practices improving the coagulation properties of plasma units. PlasFree has demonstrated that ClearPlasma™ efficacy and efficiency in mouse tail bleeding assay and in swine laceration-models. In both animal models we have demonstrated a 55% reduction of in the amount of bleeding, time of bleeding and significant improvement in the hemodynamic parameter. These results were coupled by the absence of any thrombolytic events or alteration of blood composition manifested by: d-dimer , prothrombin time, International Normalized Ratio and the absence of clots in internal organ evaluated by morphology. These results together with additional safety experiments position ClearPlasma™ as a new player in the therapeutic armamentarium of massive bleeding. This novel technology aims to ameliorate clinical complications, morbidity and mortality associated with massive bleeding.