

Our Mission

... is to develop and manage medical materiel to protect and sustain the Warfighter on point for the Nation.



Our Vision

... is to integrate with USAMRMC, Federal agencies, and the DoD, as part of the joint biomedical research and materiel community, to focus on delivering the best medical solutions for today and tomorrow.

Our products will be an integral part of the DoD Force Health Protection Program, to include vaccines, drugs, and medical devices, to prevent, diagnose, and treat infectious diseases, combat-related casualties, and CBRNE threats.

Our products will enhance far-forward medical care across the full spectrum of health care missions worldwide.



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USAMRMC



**U.S. Army
Medical Research
Materiel Command**

Freeze Dried Plasma FDP



USAMMDA

**U.S. Army Medical Materiel
Development Activity**

*Developing Quality Medical Products
for U.S. Forces*

Protect the Warrior; Sustain the Force.

Mechanism of Action . . .

Plasma is the liquid part of blood and contains proteins, clotting factors, that are essential for normal blood clotting known as, hemostasis. Abnormal or deficient blood clotting, coagulopathy, often accompanies cases of severe bleeding that occur as a consequence of wounding. Replacement of clotting factors is a necessary component for successful treatment.

Current Status . . .

Fresh frozen plasma (FFP) is frozen plasma prepared from fresh plasma in the United States. Currently, FFP is provided on the battlefield at Combat Support hospitals (Role 3) to provide replacement of clotting factors in severely bleeding combat casualties. FFP that has been thawed, Thawed Plasma (TP), may be provided at the Forward Surgical Team (FST, Role 2b).

However, up to 40% of FFP units break during transshipment (on dry-ice) of FFP from CONUS to theater. This results in substantial waste of plasma, especially so-called “universal” plasma, Type AB, which is available from only 4% of U.S. donors. During current operations, Type AB plasma have been in short supply in the U.S. because of use, and waste, in theater.

Additionally, FFP brings substantial weight, power, and cube in theater because of the inherent need to maintain it in a frozen state until used.

Benefits to the Warfighter . . .

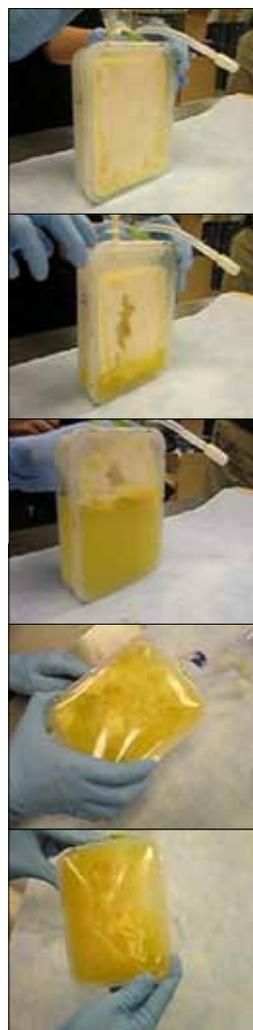
Freeze-Dried Plasma (FDP) does not require shipment on dry-ice and is packaged in a ruggedized container. These factors will substantially reduce breakage and waste of this vital medical product during shipment to and across the battlefield. Furthermore, FDP reduces the battlefield power requirement for plasma because it does not require freezing.

Finally, FDP does not require freezing so it may be deployed further forward to Role 2a for earlier use by physicians managing severe hemorrhage.

From Shelf

5 Minutes for reconstitution

To Infusion



Role of USAMMDA . . .

USAMMDA Activities in Development of FDP include:

- Award of a Cooperative Agreement to HemCon Medical Technologies, Inc., for development of their proprietary freeze-dried plasma (LyP™)
- Chairs an Integrated Product Team (IPT) jointly with HemCon to expedite successful development and fielding of FDP (LyP™)
- Monitors other commercial development of FDP by other commercial developers

Current Development Activities . . .

- Product Formulation
- Manufacturing Development
- Phase 1 clinical study in normal volunteers

Product development partners include: USAMMDA and HemCon Medical Technologies, Inc.

