



EMS Focus: Prehospital Blood Transfusion in Practice Webinar FAQ

Establishing a Prehospital Blood Transfusion Program

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The following answers are provided by:

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1. *What are the primary metrics for determining the number of patients in your area that would benefit from a prehospital blood transfusion program?*

There are three primary data points EMS agencies should evaluate in a program needs assessment:

- EMS transfusion criteria (blood pressure, heart rate, shock index, etCO₂, etc.) to identify potential need
- Hospital data such as massive transfusion protocol (MTP) rates and patients who needed blood upon Emergency Department arrival
- Fatality Analysis Reporting System (FARS) data, including patients who died on scene or en route

2. *What do you believe are the top three priorities when it comes to working through barriers and implementing prehospital blood programs across the country?*

There are three barriers to prehospital blood program growth nationally:

- Scope of practice. Some states have not authorized paramedics to initiate transfusion.

- Access to blood supply. Building rotation relationships with blood centers and hospitals can help.
- Cost. There are many ways to find funding for programs, including SS4A grants.

3. *For a transfusion service participating as a rotation partner and transfusion service (secondary ABO/Rh confirmation of the unit), what requirements must be adhered to? What can be referenced for this?*

The Association for the Advancement of Blood & Biotherapies (AABB) has set standards for blood transfusions. *Emergency Prehospital and Scheduled Out-of-Hospital Transfusion Standards*, which is available for purchase [here](#). I also recommend purchasing the Guidance book, which explains in detail the roles of the TS and TAS.

4. *Since 2016, the conversation has emphasized whole blood, but with the recent announcement regarding freeze-dried plasma, the discussion has shifted to what an EMS agency can afford. This seems to be a viable solution for rural communities where funding is an issue. Does the science support plasma over whole blood?*

There is not enough whole blood to equip every eligible U.S. ambulance, but there is enough liquid plasma to meet projected needs without impacting other donor needs. We expect the U.S. to trend toward the WWII-era model: plasma predominating prehospital transfusions and whole blood transfusions predominating in hospitals, with some mixing.

5. *With the current national shortage of whole blood, is liquid, never-frozen plasma an acceptable initial infusion?*

Yes. Liquid plasma is sufficient in supply and increasingly the likely prehospital product of choice as whole blood supply is constrained.

6. *I believe the AABB is working on releasing a second edition of the prehospital transfusions guidelines. Would you recommend waiting to purchase the standard until that second edition is released?*

The second edition is set for release on July 1st, 2027. As of right now, there are no major substantive changes. You would be fine to purchase the existing edition of the standards now.

7. *What is the best resource document to counter the argument of “not needing blood in my EMS system because we are only X minutes from a hospital or trauma center?”*

The U.S. Department of Transportation’s [2026 National Roadway Safety Strategy](#) supports this in the “Help First Responders Save Lives” section (pg. 5), stating:

“In rural areas, about 39 percent of fatal crash victims do not arrive at a hospital for one to two hours from the time of the crash, compared to 10 percent in urban areas.¹⁰ This delay in care is critical—for crash victims who need blood transfusions, every minute of delay in administering blood increases their risk of death by 11 percent. Solutions like prehospital blood transfusions—allowing first responders to deliver blood transfusions at a crash scene or enroute to a hospital—can save up to 37 percent of trauma patients with severe bleeding.”

Additionally, the state-level fatality data drawn from [Students, Residents, Fellows Trauma Advocacy Coalition \(SRFTAC\)](#) could be useful for legislative and advocacy conversations.

Published data to read includes [Every minute matters: Improving outcomes for penetrating trauma through prehospital advanced resuscitative care](#).

8. *What is the title of the recent Transfusion journal article Dr. Holcomb mentioned he co-published with Dr. Young on plasma vs whole blood?*

The article is *Scaling of prehospital blood: A model describing impact on U.S. blood donors, distribution and cost*. You can read it [here](#).

9. *Has NHTSA reached out or had a group meeting with the electronic patient care reporting (ePCR) companies to make sure we are all collecting the same data?*

Yes, the National Highway Traffic Safety Administration’s (NHTSA) Office of EMS and the National Emergency Medical Services Information System (NEMSIS) Technical Assistance Center coordinated a team, including outreach to ePCR vendors, on how to properly document blood administration in NEMSIS-compliant records. It must be entered as both a procedure (e-procedures) and a medication (e-medications, capturing product type).