

SAVING AND ENHANCING LIVES THROUGH EXPANDED ACCESS TO BLOOD PRODUCTS

Blood provided to patients as quickly as possible after trauma can save patients' lives. Unintentional injury is the leading cause of death among individuals ages 1-44. Hemorrhage is the leading cause of preventable death following a severe injury, and sadly, up to 56% of those victims die before ever reaching the hospital. When trauma occurs, time is of the essence. The faster a patient receives the necessary care, the more likely they are to survive.

Patient access to blood transfusions before they reach a hospital can have dramatic survival improvements:

- One study found up to 5% increased odds of mortality for every minute of delay in access to blood.
- The National Academy of Sciences has recommended that achievement of zero preventable deaths after traumatic injury should be the goal of a national trauma system. The Department of Transportation prioritized improving post-crash care by including it as one of the objectives within the National Roadway Safety Strategy.
- Initiation of a blood transfusion is associated with significantly improved survival for trauma patients, especially those with prolonged transportation time.

Significant barriers impede the expansion of access to pre-hospital blood transfusions:

- Reimbursement: Medicare payments are currently insufficient to support the use of blood by Emergency Medical Services (EMS) providers (with a single unit costing more than half of the reimbursement for the highest level of EMS care). Current funding relies heavily on grant funding or a hospital or EMS absorbing the cost of storing and transfusing blood.
- Scope of Practice: State and local licensure requirements can vary regarding the type of care a paramedic is allowed to provide.
- Blood Supply: Pre-hospital blood use is of non-crossmatched blood, so having access to blood that is less likely to be reactive in a variety of patients is essential. The most common blood components provided for pre-hospital use is Low Titer Type O Whole Blood, Type O Positive red blood cells, and Type A liquid plasma. Ensuring the availability of these high demand products is a continual challenge for blood centers. One study found a lower bound of 54,160 additional whole blood units would be required to meet the needs for the pre-hospital setting.

To expand access to blood products in emergency settings, America's Blood Centers is asking Congress to establish a demonstration project through the Center for Medicare & Medicaid Innovation examining the use of pre-hospital blood.

MORE INFORMATION

To learn more about Blood Advocacy Week, visit www.BloodAdvocacyWeek.org

To learn more about America's Blood Centers, visit AmericasBlood.org

Sources:

[i] <https://www.cdc.gov/injury/wisqars/animated-leading-causes.html>

[ii] https://journals.lww.com/jtrauma/Fulltext/2006/06001/Impact_of_Hemorrhage_on_Trauma_Outcome__An.2.aspx

[iii] https://journals.lww.com/jtrauma/Fulltext/2006/06001/Impact_of_Hemorrhage_on_Trauma_Outcome__An.2.aspx

[iv] <https://pubmed.ncbi.nlm.nih.gov/28452870/>

[v] <https://www.transportation.gov/sites/dot.gov/files/2022-02/USDOT-National-Roadway-Safety-Strategy.pdf>

[vi] Low titer whole blood is blood that has not been separated into components but contains low level of immunoglobulins, which are a type antibodies. This low level of antibodies make it less likely to cause adverse transfusion reactions.

[vii] <https://onlinelibrary.wiley.com/doi/full/10.1111/trf.16991>