Support of Prehospital Blood Transfusion

A Position Statement of the College of American Pathologists (CAP)

Background

Hemorrhage is the leading cause of potentially preventable death in patients who experience a traumatic injury, with up to 55% of these deaths occurring before the patient reaches the hospital.[1,2] Prehospital blood transfusion has the potential to save up to 10,000 patient lives per year.[3] Despite this, only about 2% of ground EMS programs currently carry blood products.[4] Currently, six states (Hawaii, Wyoming, Arkansas, Vermont, Maine, and Illinois) have scope of practice prohibitions on EMS personnel initiating and/or administering blood transfusions.

Support for expansion of EMS personnel scope of practice

A critical element in the delivery of prehospital blood is the empowerment of prehospital emergency medicine personnel to initiate blood transfusions in the field. CAP is pleased to note that the majority of states have updated their scope of practice to allow initiation of blood transfusions by EMS personnel and encourages them to continue to do so. CAP agrees there is sufficient medical oversight to allow EMS initiation of these lifesaving transfusions according to specific clinical indications and protocols while under the close supervision of the EMS Physician Medical Director. CAP encourages those states where EMS scope of practice relative to prehospital transfusion is limited (e.g. transfusion cannot be initiated but can be monitored by EMS clinicians in the field) or disallowed to update scope of practice towards a uniform national practice model. EMS providers are capable of safely and effectively initiating and administering transfusions in the prehospital setting while complying with all federal blood transfusion regulations. EMS physician medical oversight also ensures transfusing personnel receive appropriate education and training and operate in accordance with a quality system.

Blood products should be available for both ground and air ambulance programs

It is important that both air and ground ambulances be recognized to deliver care by transfusing hemorrhaging patients during transport and prior to hospital admission. Air ambulance access may be restricted by weather conditions, physical barriers and lack of an appropriate landing site, or other factors limiting access to the hemorrhaging patient by air. Thus, it is necessary that blood is available to ground ambulance personnel to treat massively hemorrhaging patients.

Support for ongoing research

CAP also supports ongoing efforts to systematize data collection and support research to evaluate best practices and better refine interventions. The results of the systematic review on feasibility, effectiveness and safety of prehospital transfusion that is currently being conducted by the Agency for Healthcare Research and Quality (AHRQ) will inform such efforts. In addition, more research and data analysis are needed to define the additive impact of supplying blood to EMS agencies to the overall blood supply and suggest

strategies to accommodate this growth. Blood suppliers face operational challenges such as: 1) adequate donor recruitment; 2) manufacturing limitations which further constrain the pool of available donors; 3) supply chain vulnerabilities which may limit the number of actual collections; and 4) balancing overall demand to supply prehospital programs while ensuring adequate inventory for hospitals. In addition, monitoring blood wastage and elucidating ways to reduce it will be critical to maintaining a robust supply. In addition to adequate funding, exploration of EMS provider practices, capabilities and limitations will further refine the characteristics of an optimal prehospital blood program.

Conclusion

CAP is committed to supporting the EMS community and working with CMS and others to advance policies that will increase patient access to lifesaving prehospital blood transfusions.

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2. Drake SA, Holcomb JB, Yang Y, et al. Establishing a Regional Trauma Preventable/Potentially Preventable Death Rate. *Ann Surg*. 2020;271(2):375-382. doi:10.1097/SLA.0000000000002999
3. Improving access to prehospital blood may save 10,000 lives a year. ACS. Accessed August 8, 2025. https://www.facs.org/for-medical-professionals/news-publications/news-and-articles/bulletin/2025/march-2025-volume-110-issue-3/improving-access-to-prehospital-blood-may-save-10-000-lives-a-year/.
4. U.S. Prehospital Blood Program Interactive Map: PHBTIC. Prehospital Blood Transfusion Coalition. January 3, 2025. Accessed August 8, 2025. https://prehospitaltransfusion.org/blood-program-interactive-map/.
5. Levy MJ, Garfinkel EM, May R, et al. Implementation of a prehospital whole blood program: Lessons learned. *J Am Coll Emerg Physicians Open*. 2024;5(2):e13142. Published 2024 Mar 21. doi:10.1002/emp2.13142