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A Vital Resource:

Community Blood Centers & The Growth of Prehospital Blood Programs MAY 2025

Introduction

Patient access to blood transfusions before they reach a hospital is a critical strategy in achieving national goals of zero preventable deaths after traumatic injury and improving post-crash care. In fact, one study found up to 2% increased odds of mortality for every minute of delay in access to blood.

Community blood centers are at the forefront of efforts to provide blood and blood products for use in the prehospital setting. This report examines the increasing involvement of community blood centers in prehospital blood programs, exploring the trends, challenges, and importance of these growing partnerships in improving patient outcomes and saving lives.

METHODOLOGY

This report analyzes community blood centers' role in prehospital blood programs based on an annual survey conducted by America's Blood Centers (ABC) from 2022 to 2024. The survey, distributed to all ABC member blood centers representing small, medium, and large collection centers across the U.S., utilized a mix of multiplechoice, numerical input, and open-ended questions. In 2024, 42 blood centers participated in the survey, providing data on prehospital blood program participation, blood product types and quantities supplied, funding mechanisms, implementation barriers, and operational challenges. The analysis involved a comparison of data from 2022 to 2024 to identify trends in the industry. This methodology provides a comprehensive view of prehospital blood program trends from the perspective of community blood centers. The insights gathered offer valuable information for stakeholders in both the blood community and emergency medical services, contributing to a better understanding of the evolving landscape of prehospital blood utilization.



A VITAL RESOURCE

The Increasing Prevalence of Prehospital Programs

Community Blood Centers Providing Prehospital Blood Products Between 2022 & 2024



US states allowing Field Initiation of blood transfusions by EMS clinicians



Map via Prehospital Blood Transfusion Coalition



ABC survey data shows that since 2022, there has been a consistent upward trend in the number of community blood centers providing blood and blood products as part of prehospital transfusion programs across the United States.

- 2022: Eighteen community blood centers reported providing blood and blood products to pre-hospital programs. Of these, 7 blood centers serviced both air and ground ambulance programs, while 10 blood centers serviced just air ambulance programs.
- 2023: Twenty-five community blood centers reported providing blood and blood products to pre-hospital programs. Of these, 11 blood centers serviced both air and ground ambulance programs, while 13 blood centers serviced just air ambulance programs.
- 2024: Thirty-Four community blood centers reported providing blood and blood products to pre-hospital programs. Of these, 18 blood centers serviced both air and ground ambulance programs, while 14 blood centers serviced just air ambulance programs.

This steady increase reflects growing recognition of the importance of prehospital blood transfusions and the willingness and ability of blood centers to support these initiatives.

Dramatic Increase in Blood Product Supplied

The volume of blood products supplied by ABC members for prehospital programs has also seen a remarkable increase.

This substantial growth in supply underscores the increasing demand for blood products in prehospital settings and the critical role blood centers play in meeting this need.





Type A Liquid Plasma Units



Challenges Faced by Community Blood Centers

Quality and Regulatory Oversight

Ensuring compliance with regulations and maintaining quality standards for prehospital blood products requires additional resources.



Managing separate blood inventories for prehospital use adds complexity to blood center operations.

03 Testing and Manufacturing Costs

Additional expenses are incurred for titer testing of whole blood units and the need for specialized blood bag kits for whole blood collection.

04 Product Wastage

The risk of unused products expiring, coupled with the logistical challenges of rotating inventory to prevent wastage, contributes to hesitancy among some blood centers.

5 Lack of Funding

This remains the most significant obstacle. Blood centers report that their operational costs are already strained, and additional expenses related to prehospital programs create further financial burden.



06 Donor Recruitment

The growing demand for prehospital blood products may put additional pressure on already strained blood supplies, highlighting the need for increased donor recruitment efforts especially for type-O donors. Currently, many blood centers are already grappling with low inventories, with some having only 1-2 days' worth of blood on the shelf. And Low Titer O Whole Blood programs must recruit donors that meet additional criteria.

EMS Agency Considerations and Future Outlook

While the prevalence of pre-hospital programs continues, less than 2% of all emergency management systems currently carry blood and blood products. As demand for these programs grows, the following important considerations must be addressed:

01 Improved Patient Outcomes

The ability to provide blood products in prehospital settings can potentially save lives and improve outcomes for severely injured or bleeding patients, however, EMS agencies must identify whether their patient population can support a prehospital blood program.



EMS programs must work with blood centers to ensure that all products can be utilized before expiration to avoid wastage of blood products. **02** Strain on Blood Supply

The growing demand for prehospital blood products may put additional pressure on already strained blood supplies, especially for type O donors. As more agencies seek blood there may be fewer blood centers able to meet the needs without EMS support to recruit donors and host drives.

05 Research and Development

The growth of prehospital blood transfusion could drive research into better blood formulations, storage, and transfusion protocols for prehospital use.

03 Financial Considerations

Sustainable funding models will be crucial for the longterm viability of these programs. This will require policymakers, insurers, and companies providing insurance to ensure there is robust reimbursement for prehospital transfusions.

06 Scope of Practice

Regulators must ensure that scope of practice laws allow the EMS providers in the field to provide blood transfusions.

Conclusion

The increasing prevalence of prehospital blood programs represents a significant shift in emergency medical care. While challenges remain, the potential benefits to patient outcomes are substantial. As this trend continues, it will be crucial for blood centers, emergency management systems, healthcare providers, and policymakers to work collaboratively to overcome obstacles and ensure the sustainable growth of these lifesaving programs. Moving forward, key areas of focus should include developing sustainable funding models, optimizing inventory management to reduce wastage, enhancing donor recruitment strategies, investing in research to improve prehospital blood products and protocols, and fostering closer collaboration between blood centers, EMS agencies, and hospitals.

By addressing these areas, the emergency medicine community can continue to expand the availability of prehospital blood transfusions, potentially saving more lives and improving outcomes for critically ill or injured patients.



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