



Prehospital Whole Blood Program

PUBLIC SAFETY & COURT COMMITTEE

JUNE 3, 2026

PRESENTED BY: DR. DENNIS HASLAM, CHIEF MEDICAL OFFICER & CASEY DAVIS, FIRE CHIEF



Why This Matters

Severe Bleeding Is a Time-Critical Emergency

Hemorrhage is one of the leading causes of preventable death.

Patients experiencing severe blood loss rapidly lose:

- Circulating volume
- Oxygen carrying capacity
- Ability to clot



Current Treatment

Traditional EMS treatment relied heavily on crystalloids:

- Normal saline
- Lactated Ringer's

Emerging research suggests excessive crystalloids may:

- Dilute clotting factors
- Worsen bleeding
- Increase acidosis
- Contribute to hypothermia
- Increase complications



National Trauma Care Is Changing

Military experience in Iraq and Afghanistan accelerated whole blood use.

Civilian trauma systems are now adopting similar practices.

Research demonstrates:

- Lower mortality
- Less shock on ED arrival
- Better early resuscitation outcomes
- Improved survival when blood is given earlier



Bulletin of the American College of Surgeons:
**Whole Blood in Resuscitating
Trauma Patients Is Making
a Comeback**

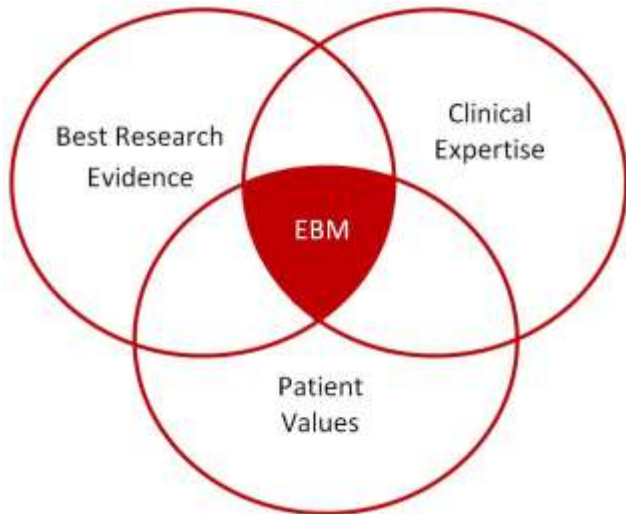
Blood May Save 10,000 Lives Per Year

American College of Surgeons Findings

Universal access to prehospital blood may save approximately 10,000 lives annually in the United States.

- Earlier transfusion improves survivability
- Whole blood improves hemorrhage resuscitation
- Prehospital transfusion reduces early mortality

“There are not many interventions that can save 10,000 patients a year.”





Texas Is Investing \$10 Million in Prehospital Blood

Regional Trauma Advisory Councils (RACs/TRACs)

North Central Texas Trauma Regional Advisory Council

Goal: Expand access to lifesaving blood transfusion capability across Texas at least 1 unit in every County.

Burleson Fire/EMS was directly encouraged to participate due to:

Largest City in Johnson county

Population impact

Advanced EMS capabilities

Existing Battalion Chief response model



Equipment Provided by NCTTTRAC

If Burleson Fire/EMS is Awarded - NCTTTRAC will provide:

NCTTTRAC has advised that participating agencies will receive one complete set of whole blood storage and transport equipment, valued at approximately \$17,000, at no initial cost to the department. As part of the program, NCTTTRAC will also provide implementation resources including protocol templates, SOP examples, and access to American Association of Blood Banks (AABB) whole blood program guidance materials to assist with program development and compliance.

Additionally, NCTTTRAC has indicated that participating agencies will be reimbursed for whole blood product costs for the duration of the current contract period, which extends through August 29, 2027. This significantly reduces the department's initial financial impact associated with implementation of the program.



What Burleson Fire/EMS Will Provide



Blood Product Supply

Burleson Fire/EMS will establish agreements with:

Regional blood suppliers

Blood rotation partners

Consumable Medical Supplies

Blood warming disposable cartridges

Blood tubing sets

Pressure infusion supplies

IV/IO supplies

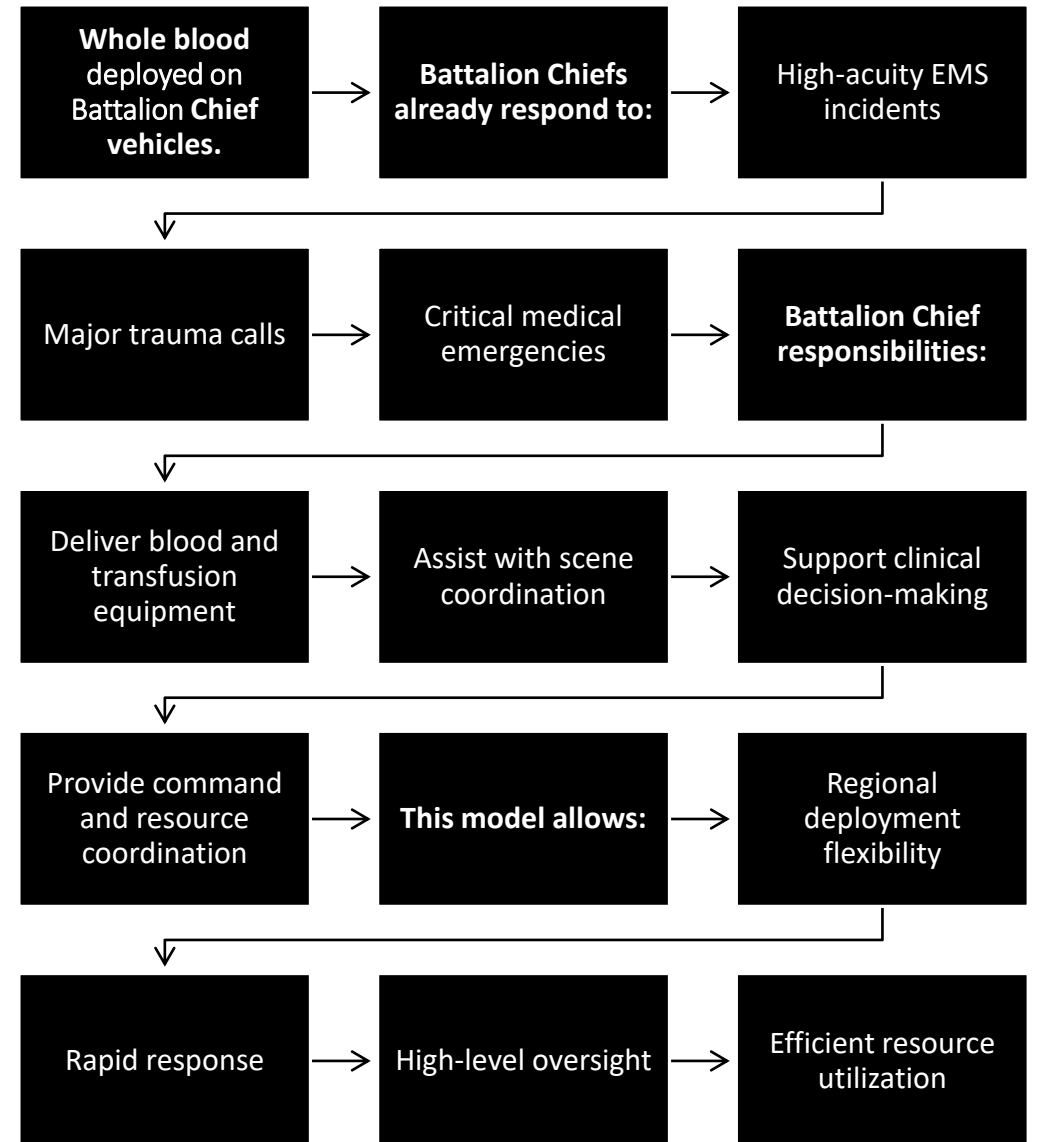
Temperature monitoring batteries

PPE and storage materials

Estimated operational cost is approximately \$24,000 annually.

There is a possibility that, if selected by the North Central Texas Trauma Regional Advisory Council (NCTTRAC), the department may be eligible for reimbursement of costs associated with whole blood products.

Proposed Regional Operational Model





Potential Patient Impact

- Burleson Fire/EMS conducted a retrospective review identifying: Approximately 40 patients in the last year who may have benefited from blood replacement therapy.
- Your Blood donation saved a Burleson life!



Blood Stewardship & Waste Prevention

Blood Is a Precious Resource

Burleson Fire/EMS recognizes:

- Blood products must be carefully managed and protected from waste.
- Blood rotated approximately every 14 days
- Returned to blood supplier/hospital partner prior to expiration
- Re-tested and redistributed for hospital use

Goal:

- Maintain readiness while minimizing waste.
- Regional systems in Texas have already demonstrated successful blood rotation programs.



Proven Programs Already Operating in Texas

Fort Worth Fire Department

Dallas Fire-Rescue

STRAC Region (San Antonio)

Johnson County Regional Whole Blood Plan

Proposed Regional Partners

- Burleson Fire/EMS
- Cleburne Fire Department
- CareFlite Ground EMS
- Crowley Fire Department
- Johnson County ESD

Regional Response Concept

- Designated Battalion Chief / Supervisor units would coordinate regional response.

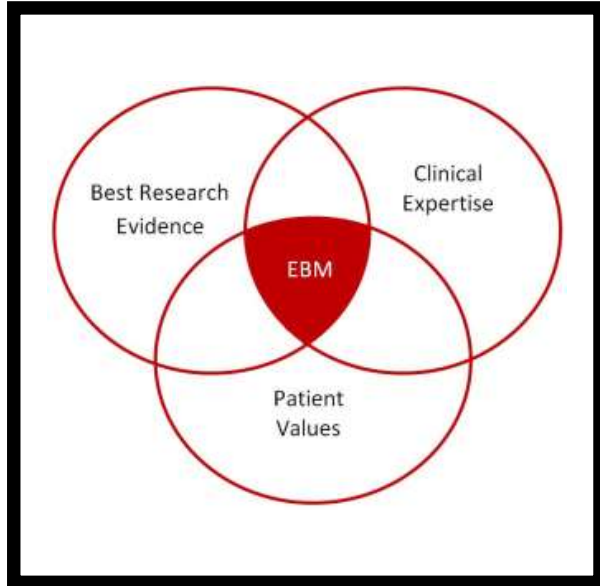
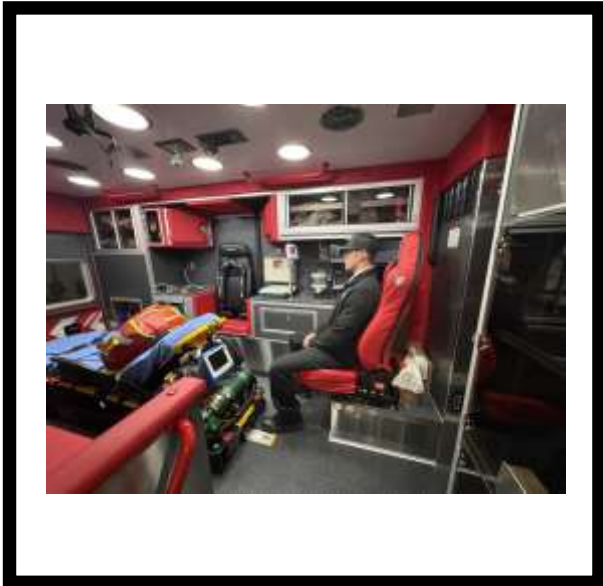
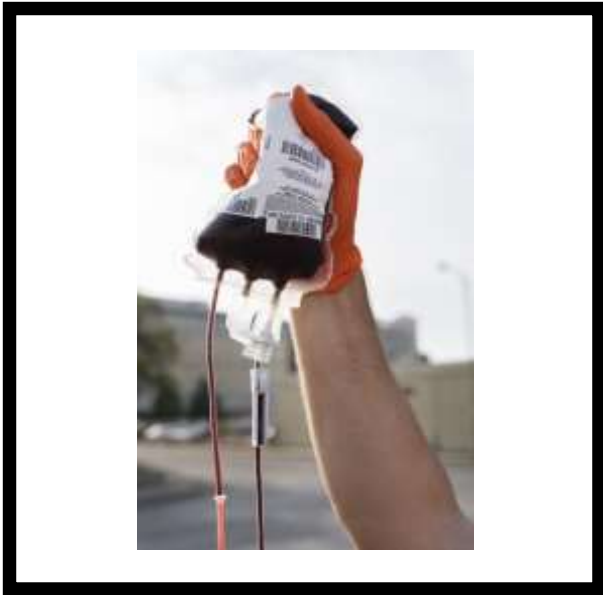
Long-Term Vision

- Build a sustainable regional prehospital transfusion network that serves the citizens of Johnson County and surrounding communities through coordinated partnerships, physician oversight, and evidence-based EMS care.

Why a Regional Model Matters

A county-wide partnership:

- Expands access to lifesaving blood products
- Improves regional interoperability
- Maximizes limited blood resources
- Reduces unnecessary duplication of equipment and cost
- Strengthens disaster and mass casualty preparedness
- Improves survivability throughout the region
- Regional funding opportunities



Staff Recommendations

- Participate in the NCTTRAC Prehospital Whole Blood Program
- Establish agreements with blood supplier and hospital partners
- Implement Dr. Haslam protocols and training
- Fund annual operational costs associated with blood product deployment
- Consider pursuing a partnership with Johnson County to support future funding opportunities and regional collaboration initiatives.
- Staff will present a supplemental funding request for consideration as part of the upcoming budget development process for fiscal year 26/27.



Questions / Comments

References:

Newman, M. S. (2021, August). Improving access to prehospital blood May save 10,000 lives a year. ACS. <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/>

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