



Abram Scientific  
MTEC Member  
(Non-Traditional)

# CoagCare™ – Rapid, Point-of-Care Viscoelastic Diagnostic Platform for Prolonged Care of Hemorrhage in the Battlespace



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## OPERATIONAL RELEVANCE

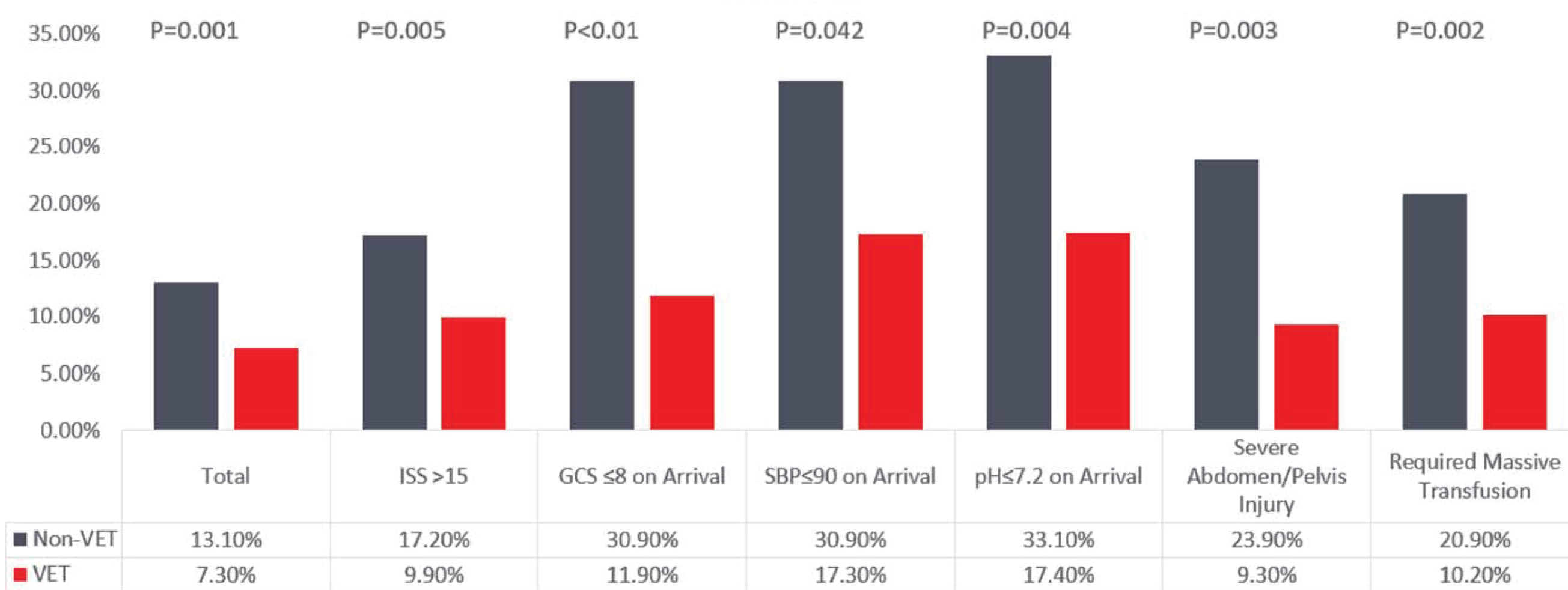


**WHAT:** Hand-held, rapid blood coagulation diagnostic as a fast, decision support tool for treatment of trauma-induced coagulopathy or hemorrhage.

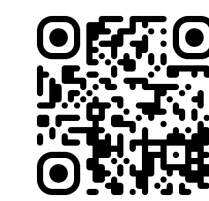
**WHY:** Improve pre-hospital / prolonged care and reduce morbidity and mortality rates.

- Critical decision support diagnostics to triage survivable hemorrhage can greatly improve effectiveness in prolonged care (24-72 hours in austere conditions) through:
  - Early detection of trauma-induced coagulopathy (TIC).
  - Adjudication of appropriate use of limited blood products and pharmaceuticals.
- Viscoelastic diagnostics-guided decision support enables targeted resuscitation via point-of-care (POC) monitoring of coagulation status, leading to improved clinical outcomes.

Mortality Rates Stratified Groups from Propensity Scored Cohorts: Non-Viscoelastic Testing (Non-VET) vs. **Viscoelastic Testing (VET)**



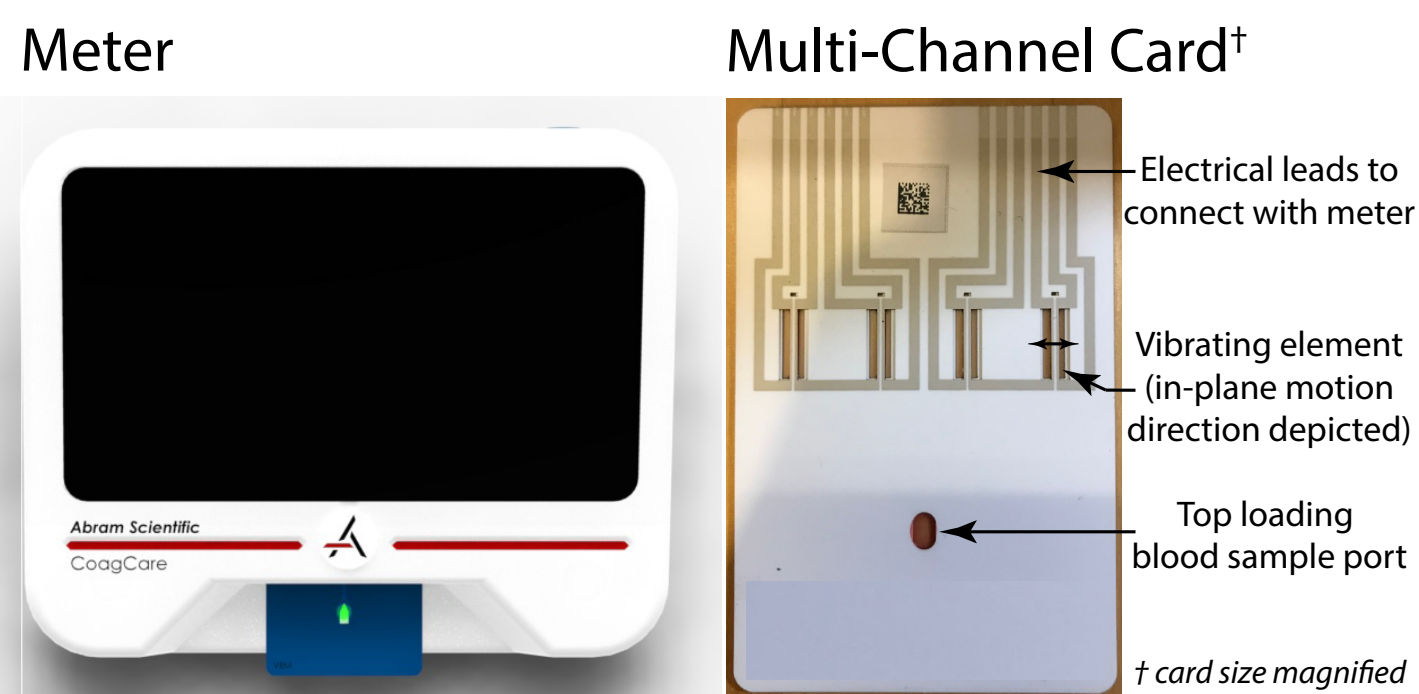
❖ A retrospective analysis of the DoD Trauma Registry from 2008 to 2016 (3,320 patients) showed that **viscoelastic diagnostics-guided targeted transfusions led to a 57% reduction in overall mortality.**



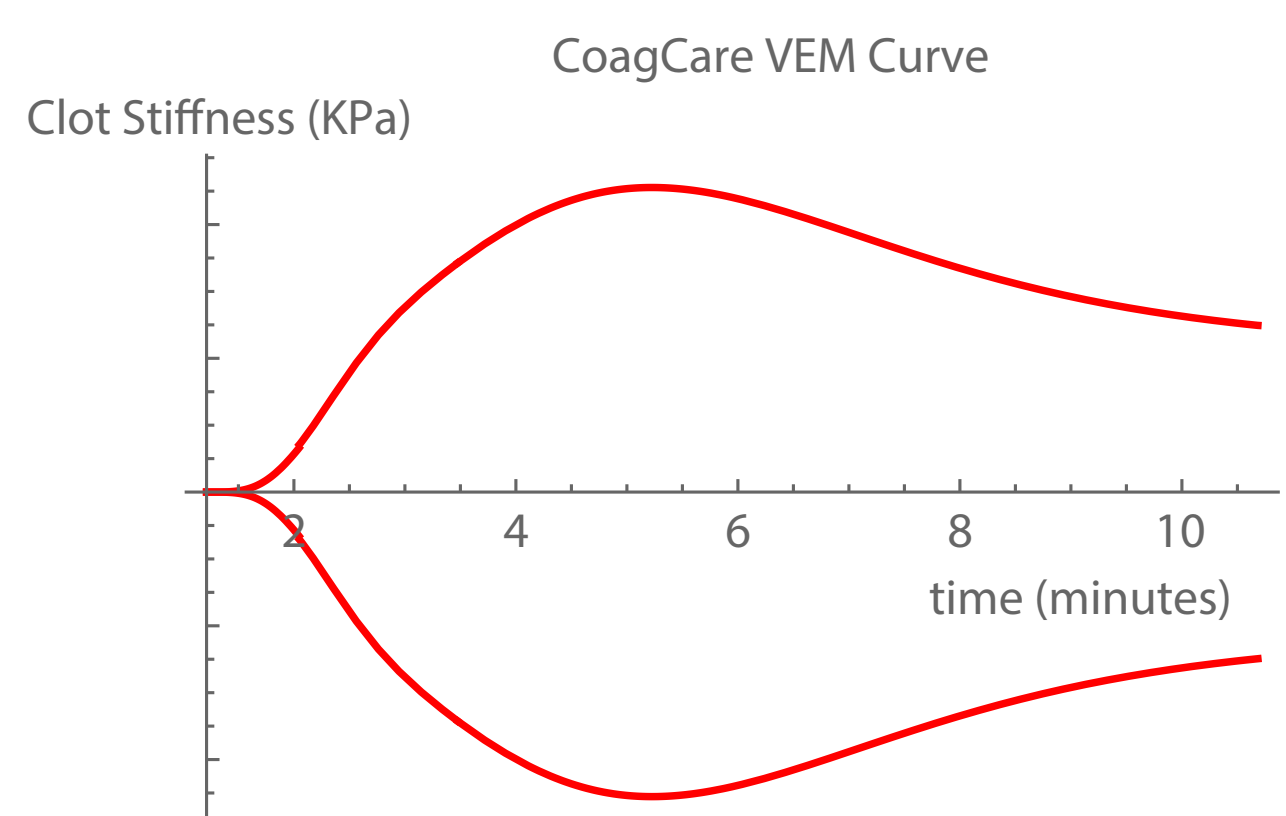
D. T. Lammers et. Al., 2020, "Viscoelastic testing in combat resuscitation: Is it time for a new standard?," J Trauma Acute Care Surg., vol. 89, no. 1, pp. 145-152 (URL: <https://doi.org/10.1097/ta.0000000000002634>).

## UNIQUE EXPERTISE AND CAPABILITIES

### (a) CoagCare Viscoelastic Diagnostic Platform:



### (b) Typical viscoelastic curve measured by the CoagCare system in 5-10 minutes, alongside the following parameters:



Abram's CoagCare™ is a first-of-its-kind coagulation platform designed to deliver (1) a gold-standard, viscoelastic method and (2) a rapid, portable, low-cost, meter-card system.

### CoagCare™ features:

1. **Handheld**, battery-operated system with **low SWAP**
2. **Rapid results** in 5-10 minutes, >6x faster than currently lab-based systems
3. Insensitive to ambient vibrations and noise
4. Low blood volume requirement (**1 drop ~ 20 µl**)
5. **Low-cost** meter & disposable platform capable of performing 5 different coagulation tests + Hct (i.e., TEG, PT, aPTT, ACT, DOACs).

CoagCare™ is not yet FDA approved for sale in the U.S.

## OPERATIONAL IMPACT

CoagCare™ guided decision support can revolutionize prolonged care:

- **Maximizing care for many wounded warfighters** by early detection & management of TIC.
- **Targeted resuscitation** with precise blood products and pharmaceuticals.
- **Optimization of transfusion products** for enhanced prolonged care by conservation and optimal distribution across many casualties.

### SUPPORT

If you are interested in sponsoring Abram Scientific's efforts, please contact MTEC.



\$3M, CDMRP Award  
ID# W81XWH2110013



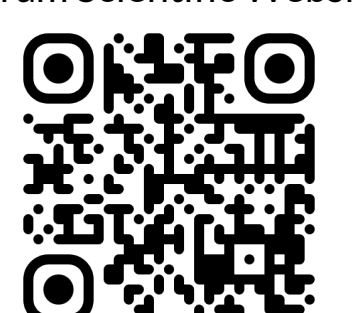
\$2M, SBIR Phase I & II  
Award ID# 2050272



\$2.5M, Seed Financing  
Led by Private Equity

### CONTACT

Abram Scientific Website



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