

Disposable Coagulation Profiler (CoagPro)

...point of injury (POI) trauma transfusion guidance

The coagulation profiler combines a disposable cartridge and handheld analyzer to provide POI coagulopathy diagnostics and transfusion guidance.

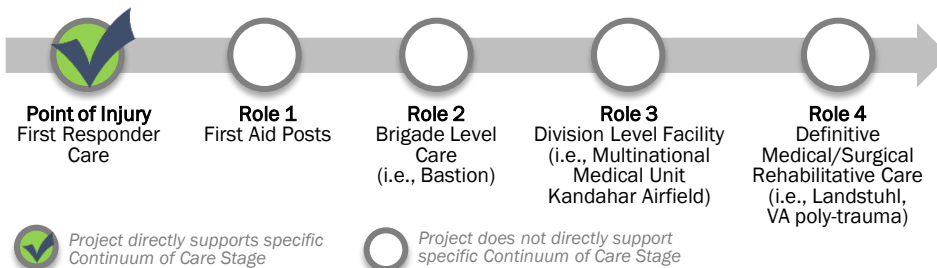
In order to most effectively treat traumatic injuries, it is critical to diagnose coagulation abnormalities at forward medical facilities. The CoagPro is a smartphone-based medical analyzer used to interrogate disposable cartridges, designed to measure blood viscoelasticity. The system is designed to be a point-of-care device that eliminates the time and cost of laboratory assays allowing assays to be conducted tableside in the surgical suite. Since the device is constructed on a micro scale, several parallel reagent tests can be conducted with a very small volume of blood (<10µl). Real-time continuous information is provided in the form of a coagulation profile and key parameters related to coagulopathy. These results are used to determine the appropriate next steps in the administration of blood products when and where it is needed most.

Key Features

- TRL 7 prototypes and high-volume manufacturing of cartridges in place
- Capable of rapid serial testing
- Onboard telehealth capability, 3G/4G, Wi-Fi and Bluetooth provides a telehealth link to ERs and hospitals
- Handheld, small and portable
- Easy-to-use disposable cartridges
- Patent-pending design resists motion-related errors
- Compact and inexpensive, the device can follow the patient
- Redundant design uses any iPhone running CoagPro App
- Ruggedized for field use
- Anticipated next steps: FDA testing
- Analysis platform expandable into other diagnostic applications



Supporting the Continuum of Care



This project is managed by the **Pacific Joint Information Technology Center**, which focuses on rapidly researching, testing, and developing warfighter medical solutions and products, through pilots or prototypes in support of the DOD.