



US DEPARTMENT OF DEFENSE  
**BLAST INJURY RESEARCH PROGRAM**  
**COORDINATING OFFICE**

## Clinical Decision Support Tools Tissue Data Acquisition Protocol

Researchers at Emory University (Atlanta, Georgia), Duke University (Durham, North Carolina), and Walter Reed National Military Medical Center (WRNMMC; Bethesda, Maryland) are actively enrolling critically ill patients in the Tissue and Data Acquisition Protocol (TDAP) developed by the Surgical Critical Care Initiative (SC2i) at Uniformed Services University of the Health Sciences (USUHS; Bethesda, Maryland) and collaborators at WRNMMC, Naval Medical Research Center (Silver Spring, Maryland), Emory University, Grady Memorial Hospital (Atlanta, Georgia), Duke University, Henry M. Jackson Foundation for the Advancement of Military Medicine (Bethesda, Maryland), Decision Q Corporation (Arlington, Virginia) (*Belard et al. In Press; Elster and Beaton In Press*). Across all sites, over 650 patients have been enrolled since the SC2i's inception in FY14. The TDAP is a standardized method for collecting all clinical data and biological specimens from critically-ill patients and healthy volunteers in support of all research initiatives approved by the SC2i. General procedures covered under this protocol include clinical sample acquisition, processing and storage, clinical data capture and storage, and the sharing of data and samples amongst SC2i partners. A central, standardized means of enrolling patients that allows for post hoc analysis and sample distribution not only permits multiple observational trials to be served with the same patient population, but also, through standardized processes, allows for insights to be leveraged across observational platforms and for interdependent influences of various injury patterns to be recognized and clarified. Through TDAP, the SC2i leverages resources in the most efficient way to maximize productivity and inform the development of numerous Clinical Decision Support Tools across conditions associated with a high incidence of mortality and morbidity (e.g., venous-thromboembolism, bacteremia, pneumonia, acute kidney injury, sepsis). The TDAP currently enrolls 6 to 10 patients a week (300 to 500 annually).

*This effort is funded with Defense Health Program and USUHS funds.*

### REFERENCES:

- Belard, A., Buchman, T., Dente, C., B.K., P., Kirk, A., and Elster, E. A. In Press. "The Uniformed Services University's Surgical Critical Care Initiative (SC2i): Bringing Precision Medicine to the Critically Ill." *Journal of Military Medicine*.
- Elster, E., and Belard, A. 2017. "Optimizing Surgical Outcomes with Biomarker-Based Decision-Making." In *Out of the Crucible: How the Us Military Transformed Combat Casualty Care in Iraq and Afghanistan*, edited by A. L. Kellermann, E. Elster and Borden Institute, 365-373. Government Printing Office.

