Neurocognitive Function and Psychological Health
Predicting Return to Duty Status in a Blast Exposed mTBI Military Population

This DCoE-sponsored study was done in conjunction with the University of Pennsylvania and Children's Hospital of Philadelphia and examine lab, imaging and neuropsychological tests of 318 blast exposed Service Members with mTBI. The purpose of the study was to develop a predictive model through the use of clinical tools of those blast exposed Service Members who are more likely to return to duty as opposed to being referred for a medical board. An initial review of lab and imaging data, as well as self-report measures, including the PTSD Checklist, Alcohol Use Disorders Identification Test, Neurobehavioral Symptom Inventory, Pittsburgh Sleep Quality Index, and Patient Health Questionnaire-9 were sectioned by individuals who proceeded to a medical board and those who returned to full duty suggested no differences between these two groups. However, on a cognitive screen using the RBANS, there was a statistically significant difference between the medical board group and returned to full duty group, with the medical board group scoring significantly lower ($p < .01$). The fact the RBANS scores were significantly lower in the group that proceeded to the medical board suggests that the RBANS may be helpful as a prognostic indicator of individuals who are likely to return to duty and deserves further study. By identifying those individuals most likely to return to full duty early in the recovery process, Service Members can be provided with a more hopeful prognosis related to their ability to return to their military career.