



US DEPARTMENT OF DEFENSE

# BLAST INJURY RESEARCH PROGRAM COORDINATING OFFICE

## Neurocognitive Function and Psychological Health A Study of Bilateral Prefrontal Transcranial Magnetic Stimulation (TMS) to Treat the Symptoms of mTBI and Comorbid Psychological Health Conditions

A study sponsored by NICOE investigated the feasibility and efficacy of TMS in rehabilitating Service Members with symptoms of mTBI and comorbid psychological health conditions. Study participants were patients at WRNMMC presenting with mTBI and comorbid psychological health conditions who received three or more repetitive TMS treatments per week. Patients were assessed at baseline and at the end of treatment for depression severity using the Periodic Health Questionnaire and/or the Quick Inventory of Depressive Symptomatology. Based on a preliminary analysis, patients receiving TMS had improved outcomes. Patients with mild-to-moderate depression had significantly higher remission rates than patients with severe depression. The study results could impact guidelines for the treatment of Service Members with mTBI and comorbid psychological disorders and suggest that patients with mild-to-moderate depression should be considered for TMS treatment, as they may actually have an advantage with respect to depression remission.