Clinical Essentials on Neuromodulation in Children and Adolescents

Course Design
This self-study course consists of a 1 hour video featuring 3 speakers tailored to each learning objective, and a 5-question post-test that must be completed by June 25, 2023.

Lectures and Topics
Transcranial Magnetic Stimulation in the Treatment of Child and Adolescent Psychiatric Disorders
Paul Croarkin, DO: 2017 AACAP’s 64th Annual Meeting
• Overview of TMS
• Data safety review
• Review of research in ASD and depression in youth
• Tolerability, response data, and additional studies

Do Baseline Neural Connectivity and Individual Variability During Executive Function Task Performance Predict Treatment Response to Repetitive Transcranial Magnetic Stimulation (rTMS) for Executive Function Deficits in Youth and Young Adults With ASD?
Stephanie Ameis, MD, MSC: 2019 AACAP’s 66th Annual Meeting
• rTMS effects on neurocognition on executive functioning in youth with ASD

Translating Advances in Neuromodulation into Child and Adolescent Psychiatry: Brain Networks, Stimulation Technology, and Therapeutic Application
Nolan Williams, MD: AACAP’s 2020 Pediatric Psychopharmacology Update Institute
• Introduction to interventional psychiatry
• First, second, and third-generation stimulation parameters
• Introduction to iTBS
• Treatment response trajectory
• Adverse reactions in children and adults

Learning Objectives
At the conclusion of this continuing medical education activity, the participant will be able to:
• Discuss the basic neurophysiology mechanisms related to transcranial mental stimulation (TMS).
• Examine the existing literature regarding the clinical applications and safety concerns related to the administration of TMS in children and adolescents.
• Identify a framework for further development of novel brain-based therapeutics for treatment-resistant psychiatric conditions.