

Abstract

Background and Purpose: Inconsistent definitions of TRD and existing TMS practice guidelines result in conflicting pathways in the care of adults with TRD in the outpatient setting (AHRQ, 2018; American Psychiatric Association, 2010; Gelenberg et al., 2010; Perera et al., 2016; Thase & Connolly, 2019). The purpose of this quality improvement project was to evaluate the effectiveness of a standardized process for screening for transcranial magnetic stimulation (TMS) in patients with treatment-resistant depression (TRD) in an outpatient psychiatric practice.

Methods: A quality improvement project was conducted utilizing a pre- and post-intervention design over 12 weeks. The intervention was a one-hour psychoeducation session and use of the Maudsley Staging Method (MSM) and the Adapted TMS Appropriateness Scale to screen for TRD and TMS. A pre- and post-test were used to determine improvement in provider knowledge, and a retrospective chart review was used to determine efficacy of screening tools measured by the number of patients who have been appropriately screened for TRD and TMS.

Results: A total of 6 providers participated in the educational session. The median post-test knowledge scores (Mdn = 5; IQR: 3, 5) were not statistically different from the median pretest scores (Mdn = 4; IQR: 4, 5) ($p = 0.10$). However, the percentage of patients who screened positive for TRD (38%) was significantly higher in the intervention group compared to the pre-intervention group (16.9%) ($p = 0.047$). Once patients were diagnosed with TRD, there was no difference in the percentage of patients who screened positive for TMS between the pre- and post-intervention groups ($p = 0.97$).

Conclusions: Even though there was not an improvement in the knowledge of providers, use of standardized screening tools, the Maudsley Staging Method, aided in identifying more patients with TRD, and the use of the Adapted TMS Appropriateness Scale aided in identifying patients eligible for TMS.

Implications: The availability of screening tools enhances the ability of clinicians to accurately identify patients who have or are at risk for developing TRD.

Keywords: transcranial magnetic stimulation (TMS), treatment-resistant depression (TRD), Maudsley Staging Method, Adapted TMS Appropriateness Scale, psychoeducation