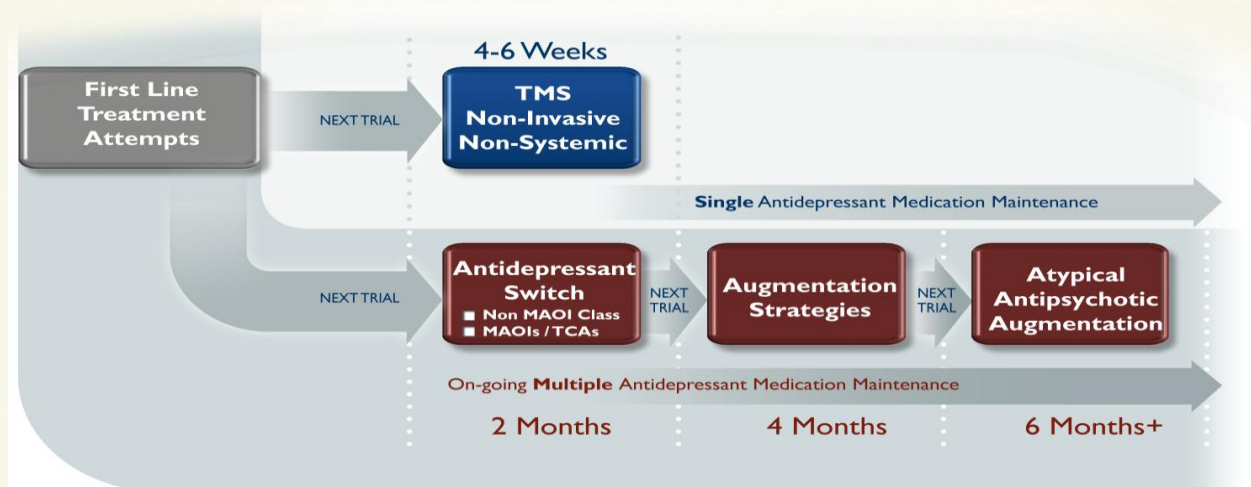


TMS TRENDS

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DETERMINING WHEN TMS MAY BE APPROPRIATE



NeuroStar TMS Therapy has been approved by the FDA for treatment of adult patients with depression who have failed to achieve satisfactory improvement from 1 prior antidepressant treatment at or above the minimal effective dose and duration in the current episode of depression. Yet, for many, unfortunately, TMS is considered a treatment option only after multiple medication failures including at times, complex and expensive combinations that expose individuals to significant side-effects. For example, we recently treated a middle-aged woman with TMS whose history included treatment failures with greater than 25 different medications and several inpatient hospitalizations.

Is there an ideal and optimal time to consider TMS Therapy? The simple answer is "no." However, if one considers the results from the Sequenced Treatment Alternatives to Relieve Depression study (STAR*D), the largest depression treatment study in the US, a valid case can be made to consider TMS Therapy earlier in the treatment course rather than later.

Firstly, results showed that with each successive failed trial, the likelihood of remission decreased. In addition, many participants dropped out of the study because of undesirable side effects from the medications and that discontinuation rate progressively increased from levels 1 through 4. Treatment resistance and sub-optimal responses are also reflected by a 2-6 times greater costs than in those who were treatment-responsive. Treatment refractory patients also incurred more inpatient hospitalizations, more outpatient office visits and greater use of psychotropic medication.

The conclusions from STAR*D as well as 2010 APA Practice guidelines are illustrated in the above flow-chart which reveal that the TMS treatment option should not be delayed but implemented earlier on.