



Data-driven Decision Making: Rate and Characteristics of Youth with Treatment Resistant Depression at Community Children's Hospital

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Learning Objectives

1. To assess the need for interventional therapeutic in outpatient adolescents with treatment-resistant depression (TRD)
2. To provide rate estimates and descriptive characterizations of patients who have trialed three or more antidepressants

Objectives: Over 16% of U.S. youth aged 12-17 experienced at least one episode of major depressive disorder (MDD) in 2022, with many not responding to or tolerating antidepressants. While alternatives like TMS or ketamine show promise as alternative or adjunctive treatment, they require significant investment in medical infrastructure. This study aims to assess the need for interventional therapeutics in outpatient adolescents with treatment-resistant depression (TRD) by providing rate estimates and descriptive characterization of those who have trialed three or more antidepressants.

Methods: Psychiatric outpatients ages 12-17 were retrospectively reviewed, including EMR data from Jan 2023 to Jan 2024. ICD-10 codes for MDD were entered into an EMR search query to identify the total number of patients diagnosed with MDD. Among 5740 psych outpatients, 1214 (21.1%) have had a diagnosis of MDD. Of these, 170 patients trialed 3 or more antidepressants. The EMRs for each of these 170 patients were reviewed, and an independent validation of these cases was completed to ensure consensus when determining dosage of antidepressant trials, reason antidepressant was stopped, and comorbid psychiatric diagnoses.

Results: Of the 1214 patients with MDD, all but 173 (14.3%) had at least one antidepressant trial and 170 (14%) had three or more antidepressant trials. Of these 170 youth, mean age 15.1 (SD 1.5), 130 (77%) female, 10% minority race, 147 (87%) showed a history of lifetime suicidal ideation and 69 (41%) had a suicide attempt. Reasons for antidepressant discontinuation included lack of efficacy (33%), poor tolerability (26%), patient preference (12%) ongoing trial with inadequate response (26%), and unknown reason (3%). Psychiatric comorbidities included anxiety disorders (117), ADHD (42), sleep disorders (15), trauma/stressor related disorder (13), unspecified mood disorders (8), substance use disorders (5), eating disorders (4), autism spectrum disorders (3), OCD (3), and psychotic disorders (3).

Conclusions: The rate of TRD in this study aligns with previous landmark findings. Limitations include lack of standardization in approach and documentation in real-life child psychiatry. However, the results support using medical records to reliably assess TRD rates and determine target population for interventional modalities.