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A Practical, Evidence-informed Approach to Managing Stimulant-Refractory Attention Deficit Hyperactivity Disorder (ADHD)

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Abstract

Stimulants (methylphenidate or amphetamines) are the recommended first-line option for the pharmacological treatment of individuals with attention deficit hyperactivity disorder (ADHD). However, some patients with ADHD will not respond optimally to stimulants. Here, we discuss strategies to manage stimulant-refractory ADHD, based on the recommendations advanced in clinical guidelines, knowledge of expert practice in the field, and our own clinical recommendations, informed by a comprehensive literature search in PubMed, PsycInfo, EMBASE + EMBASE classic, OVID Medline, and Web of Science (up to 30 March 2021). We first highlight the importance of stimulant optimization as an effective strategy to increase response. We then discuss a series of factors that should be considered before using alternative pharmacological strategies for ADHD, including poor adherence, time action properties of stimulants (and wearing-off of effects), poor tolerability (that prevents the use of higher, more effective doses), excessive focus on or confounding from presence of comorbid non-ADHD symptoms, and tolerance. Finally, we consider the role of non-stimulants and combined pharmacological approaches. While the choice of medication for ADHD is still to a large extent based on a trial-and-error process, there are reasonably accepted data and guidelines to aid in clinical decision-making. It is hoped that advances in precision psychiatry in the years ahead will further guide

prescribers to tailor medication choice to the specific characteristics of the patient.