

Preface



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Guest Editors

Major depressive disorder (MDD) challenges clinicians because it is common (with a 12-month prevalence of 7% [1] and lifetime prevalence of 20% [2]) and severe (more than 80% of patients have moderate to severe depression [1]) and because current treatments bring to acute and sustained remission only a minority of patients [3]. In the absence of useful clinical or biological predictors of response, clinicians have a limited basis to match treatments to patients, and researchers have limited targets to develop new treatments.

Most studies of interventions for MDD have focused on the short-term efficacy of antidepressants in relatively selected populations. In contrast, the Sequenced Treatment Alternatives To Relieve Depression (STAR*D) study, published in 2006, provides important longitudinal information about the real-world efficacy of currently used antidepressants as a first treatment and for those who have treatment-resistant depression (TRD). Other important developments in the treatment of TRD pertain to novel somatic treatments (including vagus nerve stimulation, recently approved by the Food and Drug Administration) and focused psychotherapies. Natural or alternative remedies also are growing in popularity. Recent studies have expanded the knowledge of real-world patients who have MDD by focusing on medical and psychiatric comorbidity, because such comorbid conditions can contribute to disease burden and can have a negative effect on treatment outcome.

One of the most promising developments in depression research is early data on biological markers of treatment outcome. Researchers have studied specific brain parameters measured by functional neuroimaging (functional MRI or

positron-emission tomography), electrophysiology (quantitative electroencephalography), or genetic tools to predict clinical outcomes of treatment with antidepressants. Although most of these results are preliminary, and none of these biological markers has yet been sufficiently validated to warrant application in clinical practice, the development of these prognostic markers during the next decade looks promising. Such biological markers of treatment outcome could guide clinicians' selection of antidepressant agents in newly diagnosed patients and in those who have TRD. Researchers could also use such biomarkers to screen novel pharmacologic compounds assumed to have antidepressant efficacy.

This issue of *The Psychiatric Clinics of North America* aims to provide a clinically focused perspective to these recent developments in the rapidly expanding field of basic and clinical research in MDD. It begins with a review of the molecular neurobiology of depression. This review in turn focuses the discussion in the next several articles on treatment strategies for TRD (including pharmacologic agents, somatic treatments, psychotherapies, and alternative remedies). Two articles are dedicated to the important comorbidities of depression with alcohol-misuse disorders and with medical illnesses. Articles then evaluate potential biologic markers of treatment outcome (defined by neuroimaging, electroencephalography, and genetic studies).

We are extraordinarily grateful for the scholarly contributions of all the authors, whose breadth of knowledge made possible the large scope of this issue. We hope these contributions will have a direct impact on your clinical practice and also prepare you for soon-to-arrive new developments in diagnostic and therapeutic tools.

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