

### Brain Stimulation in Psychiatry: ECT, DBS, TMS and Other Modalities

edited by Charles H. Kellner, MD. Cambridge University Press, New York, New York, 2012, 148 pages, \$55.00 (paper).

Until the mid-1980s, electroconvulsive therapy (ECT) was the only brain stimulation technique available. Reviled by many due to its inhumane image, enhanced by gripping albeit fictionalized images in the popular 1975 movie *One Flew Over The Cuckoo's Nest*, it is to date the most effective antidepressant treatment available, but is also effective for other disorders such as schizophrenia and catatonia. The introduction of general anesthesia, technical enhancements, and positive outcome have contributed to a better experience for patients as well as acceptance in the field. ECT is currently increasingly used, and 1 million to 2 million people worldwide receive treatment annually.<sup>1</sup> Since the 1980s, several other brain stimulation techniques have emerged in rapid succession, and several have been approved for the treatment of psychiatric disorders. In *Brain Stimulation in Psychiatry: ECT, DBS, TMS and Other Modalities*, Kellner gives a much-needed concise overview of the types of available techniques, their efficacy, progress in their development, and step-by-step instructions for practitioners.

The book is divided in 14 chapters dedicated to 7 techniques: ECT, deep brain stimulation (DBS), repetitive transcranial magnetic stimulation (rTMS), magnetic seizure therapy (MST), vagus nerve stimulation (VNS), transcranial direct current stimulation (tDCS), and the newest technique, epidural cortical stimulation (EpCS). The first 8 chapters describe ECT, the most widely used and studied technique. They address in detail its basic concept, the different techniques and when and how to use them, its benefits and drawbacks, and what to do if treatment fails. In addition, the

chapters describe the mechanics, physiology, patient selection, and treatment course, and they even provide suggestions for staffing and location of one's ECT suite as well as discussion of topics related to stigma and malpractice. Although there is a shorter track record for the other techniques, including the FDA approved rTMS and DBS, every technique is described in detail, from available machines and manufacturers to indications for use. The chapters on rTMS and BDS, although shorter than the ones on ECT, are as helpful for the practitioner, while due to the more recent introduction and limited knowledge about evidence and use of these modalities, the chapters on MST, VNS, tDCS, and EpCS are more descriptive than practical. However, their potential role in future practice is addressed. An extensive and helpful list of references for further reading is added after each chapter.

Overall, this pocket-sized book is up to date, practical, and user friendly and is highly recommended as an easy reference guide for anyone practicing psychiatry or neurology. It will certainly be an asset to physicians familiar with and using ECT as well as for residents, medical students, and others new to brain stimulation techniques.

#### REFERENCE

1. Stanford D, Sporn A, Krystal AD, et al. Convulsive and other somatic therapies. In: Gabbard GO, ed. *Gabbard's Treatments of Psychiatric Disorders, Fourth Edition*. Washington, DC: American Psychiatric Publishing, Inc; 2007.

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**Potential conflicts of interest:** None reported.

*J Clin Psychiatry* 2014;75(1):e94 (doi:10.4088/JCP.13bk08891).

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