Improving Electroconvulsive Therapy Practice


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What is the state of the clinical practice of electroconvulsive therapy (ECT) in the United States today?

Surveys of ECT use in the United States show disparate applications, with the principal use in academic medical centers. While more than half the treatments are given to outpatients, whole populations are underserved. Reports of ECT practices in community settings are disquieting, with out-of-date equipment and nonstandard treatment protocols described, resulting in preventable untoward consequences. The education of practitioners in ECT is limited, and no standards for certification or requirements in experience are routine. Similar circumstances in Great Britain a quarter century ago elicited criticism of the profession that eventually led to a voluntary response by the national psychiatric associations. Training and practice standards have been reset, with increasing numbers of clinical centers meeting practice standards. This experience can be used as a model to ensure effective and safe treatment in the United States.

The British experience

In 1980, Britain's Royal College of Psychiatrists (RCP) commissioned a national survey of the practice of ECT in response to public and professional concerns. A questionnaire was sent to psychiatrists, psychiatric facilities, and general practitioners. In addition, two surveyors observed ECT treatments in 100 of 180 treatment facilities. The surveyors reported that obsolete devices, minimal training of personnel, lack of seizure monitoring, and missed seizures were frequent. In 27 clinics, ECT practice was so deficient that surveyors would not hazard the treatments for themselves or their patients. After the findings were published, the editors of The Lancet chastised the profession. "Every British psychiatrist should read this report and feel ashamed and worried about the state of British psychiatry. If ECT is ever legislated against or falls into disuse it will not be because it is an ineffective or dangerous treatment; it will be because psychiatrists have failed to supervise and monitor its use adequately." In 1989 the RCP issued ECT practice guidelines. A follow-up 1991 survey of a sample of National Health Service (NHS) hospitals and private clinics in two British NHS regions found much improvement in the physical and anesthetic conditions of ECT practice, but half the units were still using outdated equipment, few consultant arrangements were satisfactory, and the training of registrars was still inadequate. ECT usage varied widely, with a 55% drop in one region and a 20% rise in another since 1979. Updated guidelines for effective treatment, facilities, and training of personnel were issued by the RCP in 1995. A third survey in 1998 again found deficiencies; a third of the clinics did not meet RCP guideline standards, 41% still used outdated equipment, and only 16% of the responsible consultants attended weekly ECT treatment sessions. After 20 years of activity by the RCP and three audits, there was only modest improvement in clinical practices. The training of the junior doctors who administered ECT was of variable quality; more than half asserted that their first treatment was given without the supervision of a qualified consultant. In examination questions, 45% lacked knowledge about one or more basic issues in ECT practice. Within one academic Scottish hospital over three years, usage varied 18-fold among 11 general adult consultant teams and 2-fold among three geriatric psychiatric teams.

The Scottish audit

Shamed by the continuing poor assessments of ECT practice and recalling the earlier Lancet challenge, Scottish psychiatrists, led by Dr Chris Freeman of Edinburgh (the author of the 1981 Lancet editorial), undertook a 3-year cycle of audits in 1997 to systematically answer questions about patient demographics and clinical outcomes. Each ECT clinic was visited at least twice to assess the facilities and adherence to RCP standards.
The investigators found that facilities now met RCP standards. ECT treatment was given mainly to white, adult patients who had a depressive disorder; the ratio of females to males was about 2:1 and there was no disproportionate ECT use among elderly patients. Annual ECT usage in 1999 showed a progressive fall to half of that in the earlier rates from 1985 to 1995. At least 71% of patients who were treated with ECT had a greater than 50% reduction in depression rating scale score, with an average of seven treatments in a course. Using more stringent criteria, between 34% and 52% of patients achieved remission. The authors concluded that the national audit ensured that ECT was delivered at a high standard throughout Scotland and that “there is now an increasing wealth of data with which to allay the fears of the public and the profession alike.”

ECTAS Program
The Scottish survey encouraged the RCP to establish the ECT Accreditation Service (ECTAS) in October 2003. This voluntary self-appraisal and examination service is revolutionizing UK ECT practice. In the 2006 year-end report, 61 ECT units are accredited (seven with "excellent" ratings) and 31 of the 150 registered ECT clinics in England, Ireland, and Wales are in the self-assessment and peer-visit program. Each site evaluation begins with team members completing a 284-item questionnaire that assesses facilities, staff and staff training, consent, anesthesia, treatment and recovery procedures, precautions, and adherence to protocols. The questionnaire encourages site members to examine their practice against RCP guidelines. The questionnaire is followed by a visit from a trained assessment team (ie, clinician, nurse, anesthesiologist) to observe ECT in practice. Resurveys of evaluated sites are scheduled in 3-year cycles.

ECTAS maintains an active Web site that lists periodic courses for clinicians and assessors. Members answer technical queries. The 2006 year-end messages summarize recent technical queries on electrode placement, memory assessment, consent and evaluation of capacity to consent, and advance statements and advance directives. An update of ECTAS standards was posted on the Web site in December 2006. British public critiques of ECT encouraged the development of ECTAS. Assessments of the literature for comparative efficacy of different electrode placements and comparisons with pharmacotherapy concluded that ECT was effective in the short-term for the treatment of depression and was probably more effective than drug therapy. The National Institute for Clinical Excellence, which assesses therapies for the UK National Health Service, raised questions about ECT but supported its efficacy and use. A survey of patients' views of ECT reported lesser benefits and greater effects on memory than those described in the literature of the RCP.

US Practice
What of ECT practice in the United States? In 1974, regulations in California that proscribed the use of ECT led practitioners to seek redress. A court review challenged the law and new regulations allowed continued use of ECT under strict guidelines and reporting requirements. In 1975, the American Psychiatric Association (APA) established a task force on ECT that supported its continued use as effective and safe. A formal consent process to support the voluntary nature of treatment was recommended. These guidelines encouraged hospitals to develop ECT units. Surveys in the 1990s found ECT usage spotty, with high use in academic medical centers and almost no use in state and Veterans Administration facilities. Limited attention was paid to the education of personnel, although a few academic sites offered 1-week "hands-on" fellowships. Single-day lecture programs were features of meetings of national organizations. The elements of ECT practice are rarely discussed in medical school. The agendas of psychiatry residency training programs make training in ECT optional, in contrast to the detailed requirements in psychotherapies, pharmacotherapy, and social case management. In addition, experience in ECT is not directly queried in national board examinations. One consequence is an unregulated and haphazard treatment system. A recent survey of practice patterns in 59 ECT facilities in the greater New York City region found that facilities varied considerably from established standards of practice.

A second survey of clinical effectiveness of ECT in 347 patients in seven hospitals looked at clinical outcomes immediately after the course of treatment and in a 24-week follow-up period. In contrast to the 70% to 90% remission rates reported from established academic research centers, the remission rates (depending on criteria) were 30% to 47%. The authors criticized the standards that were used to assess clinical outcome and subsequent care.

Confronting the challenge
The lack of training and certification standards in ECT is not limited to the United States but is found worldwide. The ECTAS experience offers a model for necessary improvement in training.
Who will lead in establishing an effective monitoring and educational system in the United States? The APA has a reference committee whose mission is to issue decennial practice guidelines. In response to an earlier challenge, the Association for Convulsive Therapy now supports a 1-day training program as part of its annual meetings. Although they were urged to develop a certification program, the leaders did not see such a program as feasible, mainly because of cost. However, the evidence of the inadequacies revealed in the recent New York studies argue that there is a need for such a service.

If US patients are to benefit from this useful therapy and psychiatry is not to be chastised as was British psychiatry in 1981, an ECTAS program or one just as effective needs to be considered by US psychiatrists.

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