Declining access to electroconvulsive therapy: A clinical choice or an economic one?

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Horrific images from One Flew Over the Cuckoo's Nest notwithstanding, modern electroconvulsive therapy (ECT) remains one of the safest and most effective antidepressant treatments, particularly for patients who do not tolerate antidepressant medications or depression symptoms that have failed to respond to antidepressant medications.

Since its introduction in the 1930s, ECT has evolved into a more refined, but more expensive and extensively regulated clinical procedure. Each treatment involves the assembly of a multidisciplinary clinical team and the use of a highly specialized device to deliver brief pulses of low dose electric currents to the brain. ECT is performed while the patient is under general anesthesia and, depending upon each individual's response, is usually administered 2-3 times a week for 6-12 sessions.

A new study in Biological Psychiatry suggests that reductions in ECT treatment have an economic basis. From 1993 – 2009, there was a progressive decline in the number of hospitals offering ECT treatment, resulting in an approximately 43% drop in the number of psychiatric inpatients receiving ECT.

Using diagnostic and discharge codes from survey data compiled annually from US hospitals, researchers calculated the annual number of inpatient stays involving ECT and the annual number of hospitals performing the procedure.

Lead author Dr. Brady Case, from Bradley Hospital and Brown

University, said, "Our findings document a clear decline in the capacity of US general hospitals – which provide the majority of inpatient mental health care in this country – to deliver an important treatment for some of their most seriously ill patients. Most Americans admitted to general hospitals for severe recurrent major depression are now being treated in facilities which do not conduct ECT."

This is the consequence of an approximately 15 year trend in which psychiatric units appear to be discontinuing use of the procedure. The percentage of hospitals with psychiatric units which conduct ECT dropped from about 55% in 1993 to 35% in 2009, which has led to large reductions in the number of inpatients receiving ECT.

Analyses of treatment for inpatients with severe, recurrent depression indicate the changes have equally affected inpatients with indications like psychotic depression and with relative medical contraindications, suggesting declines have been clinically indiscriminate. By contrast, non-clinical patient factors like residence in a poor neighborhood and lack of private insurance have remained important predictors of whether patients' treating hospitals conduct ECT, raising the concern of systemic barriers to ECT for the disadvantaged.

Where hospitals have continued to conduct the procedure, use has remained stable, indicating divergence in the care of patients treated in the large academic facilities most likely to conduct ECT and those treated elsewhere.

"Psychiatry has taken a step backward. The suffering and disability associated with antidepressant-resistant depression constitute a profound burden on the patient, their family, and society. ECT remains the gold standard treatment for treatment-resistant depression," commented Dr. John Krystal, Editor of *Biological Psychiatry*. "We must insure that patients with the greatest need for definitive treatment have access to

this type of care. ECT may be one of the oldest treatments for depression, but its role in treatment has been given new life in light of a generation of research that has outlined molecular signatures of ECT's antidepressant efficacy."

More information: The article is "Declining Use of Electroconvulsive Therapy in United States General Hospitals" by Brady G. Case, David N. Bertollo, Eugene M. Laska, Lawrence H. Price, Carole E. Siegel, Mark Olfson, and Steven C. Marcus (doi: 10.1016/j.biopsych.2012.09.005). The article appears in *Biological Psychiatry*, Volume 73, Issue 2 (January 15, 2013).

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