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Is remission a necessary and sufficient definition of success in ECT? Part 2

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Achieving remission from symptoms of mental illness, as opposed to achieving a simple treatment response, is the goal of psychiatric treatment. In the setting of an antidepressant drug clinical trial, treatment-response is usually defined as a 50% reduction in the burden of symptom intensity, while a treatment-remission is a near elimination of symptoms. In depression clinical trials of electroconvulsive therapy (ECT), remission is often defined as a Hamilton Rating Scale for Depression (HRSD) score of ≤ 10 at the end of the treatment course.^{1,2} The importance of achieving remission is reflected in the superior functional outcomes and lower illness-recurrence rates in persons who achieve remission as opposed to achieving only a treatment response.³ In an earlier editorial, we discussed whether it was necessary to achieve remission from symptoms of a mental disorder in order to declare a course of ECT as a clinical success, and we argued that in some cases a course of ECT can be declared successful despite an outcome that falls short of the definition of remission.⁴ In other words, remission is not *always* necessary in order to define a course of ECT as successful.

So to consider the contrary argument, if sustained remission is achieved in the treatment of depression, is sustained remission sufficient for a full recovery from mental illness? We have shown in our own work that the achievement of remission from major depression with ECT is indeed associated with marked improvements in health-related quality of life (HRQOL) for most patients, and the degree of improvement in HRQOL is greater in persons who meet remission criteria as opposed to those to fail to meet that definition.⁵ Further, average values of HRQOL will normalize in samples of depressed patients who have sustained remission over 6 months after ECT, such that mean scores of HRQOL in samples of remitted patients look similar to mean scores from age-adjusted population controls.⁶ In these studies remission was declared when the HRSD scores dropped by $\geq 60\%$ from baseline, with the absolute score ≤ 10 .⁶ Relapse during follow-up was defined as an increase in HRSD score to ≥ 16 , and a rise in HRSD score of ≥ 10 points as compared with the remission score at the end of acute ECT.

Sustained remission from depression might be expected to be associated with functional and emotional recovery in all patients. Yet a closer look at the data for individual patients shows deep and enduring deficits in HRQOL for a few persons. In the “Optimization of ECT” study in particular, 5 of 26 (19%) patients who met the definition of sustained remission for 6 months were still reporting a score of ‘0’ on the “Role Emotional” subscale of the Medical Outcomes Study Short Form-36 (SF36).⁶ (Figure) Four of the 5 patients with a “Role

Emotional Score” of ‘0’ after 6 months of sustained remission also had a score of ‘0’ before ECT, and the best predictor of a score of ‘0’ at 6 months was the HRSD score at 6 months and the “Role Emotional” score at baseline -of note, autobiographical memory function was unrelated to “Role Emotional”. Thus, a marginally elevated HRSD score may not be sufficiently high to lead to a categorization of ‘relapse’, but may nevertheless be high enough to contribute to poor HRQOL.

A “Role Emotional” score of ‘0’ indicates severe “problems with work or other daily activities as a result of emotional problems”, and 11% of the general adult population will endorse a score of ‘0’ on this subscale.⁷ The “Role Emotional” subscale asks respondents whether “as a result of any emotional problems, such as feeling depressed or anxious” have they: (1) Cut down the amount of time spent on work or other activities, (2) accomplished less than they would like, (3) Didn’t do work or other activities as carefully as usual.⁷

The lesson learned is that sometimes meeting the definition of sustained remission in an ECT clinical trial does not necessarily mean that a patient is free of all burdens related to psychological difficulty. Should the definition of sustained remission be more stringent? In clinical practice, we recognize that even those patients with sustained remission from depression after ECT may need additional psychological interventions to fully restore health and HRQOL, especially if they are burdened with comorbid conditions that existed prior to ECT. These patients might also be the same patients who are less than fully satisfied with the results of ECT.

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Individual SF-36 subscale scores for 26 adult patients with sustained remission from depression at 6 months post-ECT

Jiggled dots represent individual patients. Horizontal bars represent means for patients and population norms for each subscale