

## ELECTROCONVULSIVE THERAPY (ECT) CONVULSION TIME ACCORDING TO DIAGNOSIS AND TREATMENT PHASE

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**Introduction:** ECT remains as one of the most effective and secure psychiatric treatments for a wide variety of disorders, like depression, bipolar disorder or schizophrenia. Although not fully known, several theories hypothesize about its mechanism of action. To be effective, it has to induce a generalized convulsion of at least 15 seconds.

**Objective:** To analyze and compare convulsion times regarding diagnosis and treatment phase (acute, continuation or maintenance) to discern whether these factors influence convulsion time.

**Methods:** 1675 ECT sessions were performed on 117 patients during a year at a university hospital. Convulsion times were analyzed comparing them according to main diagnosis (bipolar disorder, major depressive disorder, schizophrenia, schizoaffective disorder), as well as according to treatment phase (acute, continuation, maintenance).

**Results:** Schizophrenia mean convulsion time was 40,77 seconds (CI95% 39,25-42,28), for schizoaffective disorder it was 34,59 seconds (CI95% 32,74-36,44), for bipolar disorder 35,13 seconds (CI95% 33,83-36,43) and for major depressive disorder 34,90 seconds (CI95% 32,72- 37,07), with a statistical significance between groups of  $p < 0.001$ .

According to treatment phase, mean convulsion time in the acute phase was 34,94 seconds (CI95% 33,81-36,19), in the continuation phase it was 39,61 seconds (CI95% 37,28-42,29), and in the maintenance phase it was 39,00 seconds (CI95% 37,92-40,18), with a statistical significance between groups of  $p < 0.001$ .

**Conclusions:** Although there exist statistically significant differences between groups according to diagnosis and treatment phase, they are not clinically relevant, thus concluding that neither diagnosis nor treatment phase seem to influence convulsion time to a relevant degree.