

The Relationship Between Neuroleptic Blood Serum
and Dose CPZE Levels and Luria-Nebraska
Neuropsychological Battery Performance

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Of the numerous variables potentially affecting neuropsychological test performance in psychiatric patients, neuroleptic medication may be one of the most important. However, recently published data suggests that little relationship exists between neuroleptic dose and neuropsychological test results. The purpose of this investigation was to determine the role of blood serum level (vs. dose) of neuroleptics in test results. Thirty inpatient schizophrenics volunteered and were individually administered Form I of the Luria-Nebraska Neuropsychological Battery (LNNB). Blood samples were obtained and chlorpromazine equivalents (CPZE) were determined using a radio immuno assay technique. The results indicate that no significant relationship existed in this sample between most dose conversion formulas and LNNB scores or blood serum levels. However, significant ($p < .05$) relationship was found between blood serum levels and the following LNNB scales; Motor, Expressive Speech, Reading, Arithmetic (with Pathognomonic approaching significance). These results provide support for (a) the concept that neuropsychological performance is affected or at least related to neuroleptic intake and (b) the hypothesis that blood serum and not dose may be more useful in determining the behavioral consequences of neuroleptic administration in this population.