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Abstract: The concept of dose equivalence is important for many purposes. The classical approach published by Davis in 1974 subsequently dominated textbooks for several decades. It was based on the assumption that the mean doses found in flexible-dose trials reflect the average optimum dose which can be used for the calculation of dose equivalence. We are the first to apply the method to second-generation antipsychotics. We searched for randomized, double-blind, flexible-dose trials in acutely ill patients with schizophrenia that examined 13 oral second-generation antipsychotics, haloperidol, and chlorpromazine (last search June 2014). We calculated the mean doses of each drug weighted by sample size and divided them by the weighted mean olanzapine dose to obtain olanzapine equivalents. We included 75 studies with 16,555 participants. The doses equivalent to 1 mg/d olanzapine were: amisulpride 38.3 mg/d, aripiprazole 1.4 mg/d, asenapine 0.9 mg/d, chlorpromazine 38.9 mg/d, clozapine 30.6 mg/d, haloperidol 0.7 mg/d, quetiapine 32.3 mg/d, risperidone 0.4 mg/d, sertindole 1.1 mg/d, ziprasidone 7.9 mg/d, zotepine 13.2 mg/d. For iloperidone, lurasidone, and paliperidone no data were available. The classical mean dose method is not reliant on the limited availability of fixed-dose data at the
lower end of the effective dose range, which is the major limitation of “minimum effective dose methods” and “dose-response curve methods.” In contrast, the mean doses found by the current approach may have in part depended on the dose ranges chosen for the original trials. Ultimate conclusions on dose equivalence of antipsychotics will need to be based on a review of various methods.