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# Intermediate metabolizer: increased side effects in psychoactive drug therapy. The key to cost-effectiveness of pretreatment CYP2D6 screening?CYP2D6 IMs and side effects

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**The cytochrome P450 2D6 (CYP2D6) isoenzyme metabolizes about 25% of clinically used drugs. The impact of CYP2D6 metabolizer status on therapeutic outcome was assessed in 365 psychiatric in-patients treated with neuroleptics or antidepressants. Length of hospitalization and response onset were prolonged for patients receiving CYP2D6 drugs. Intermediate metabolizers (IMs) receiving CYP2D6 doses above the population median had more side effects after 4 weeks than extensive**

**metabolizers with above-median doses (9/13, 69% vs 4/23, 17%, P=0.003), than IMs with below-median doses (5/22, 23%, P=0.012) and IMs with other medication (24/84, 29%, P=0.009). The Clinical Global Impression scale response was lower for IMs treated with CYP2D6 drugs (3/42, 7%) than for IMs with other medication (21/84, 25%, P=0.017) probably due to increased side effects. Identification of IM status (38% of study population) may help to reduce side effects and length/cost of hospitalization. Thus, not only poor and ultrarapid metabolizer but also IMs may benefit from CYP2D6 genotyping. This is of paramount interest since it greatly improves cost/benefit estimations for pretreatment CYP2D6 screening.**



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