

Pharmacogenetic Testing

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The available evidence for pharmacogenomic testing to guide treatment with selective serotonin reuptake inhibitors and serotonin norepinephrine reuptake inhibitors has dramatically increased over the past 5 years. In this presentation, general pharmacogenetic principles will be summarized and functional polymorphisms in P450 enzymes (and associated metabolizer phenotypes), the serotonin transporter promoter polymorphisms, serotonin 2A receptor genes (e.g., HT2AR) and catecholamine pathway genes (e.g., COMT) will be reviewed. Commonly tested pharmacogenetic markers are discussed with regard to studies of drug levels, efficacy and side effects. Finally, this presentation will summarize the current evidence and review the way in which variations in individual genes that may be relevant to medication metabolism or medication target engagement, can be used to guide treatment in the clinic, today.