

Prescribing by Genotype—Are We There Yet?

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There is a constant tension between the need to individualize drug choice and dosage and the desire of marketers to market their drug to all at the same dose. Physicians are notoriously poor at adjusting drug doses even when there is a measurable end point such as blood pressure. They are of course, unable to individualize dose when the therapeutic end point is unquantifiable in routine follow up care—such as prevention of sudden death. Understanding an individual's genetic make up may allow prediction and therefore elimination of some of this variability and lead to better dose choice. The role of pharmacogenetic information in determining drug dosage, therapeutic outcome and clinical trial design will be reviewed. Although there has been considerable optimism about the potential for “personalized medicine” some of the untested/untrue underlying assumptions need to be recognized and thought given to how they will affect the incorporation of pharmacogenetic information into clinical trial design and clinical practice.