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TITLE

EFFECT OF TEST PARAMETERS ON *IN-VITRO* METHOD TO DETERMINE BIOAVAILABILITY OF DOSAGE FORMS

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During the screening processes of new drug candidates, this is too important to get knowledge about their absorption characterstics and potential bioavailability. The physicochemical factors of drug will affect absorption efficiency and kinetics. Aqueous solubility and dissolution rates, lipid solubility and partition coefficient profile within physiological pH range will provide information of orally administered drug. Ukema and Takayama described two models for prediction of drug absorption by in vitro dissolution from compressed tablet. The system was based on interfacial transfer of drug from aqueos phase to an organic phase, following dissolution of drug in aqueous phase and other on the basis of perfusion of drug solution in small intestinal tract of a rabbit as in situ following dissolution of drug in reservoir. In vitro physical models are based on approximation and simplifications of actual in vivo conditions. The objective of in vitro dissolution testing is an important tool for characterizing the biopharmaceutical quality of a dosage form. The in vitro rate of drug release from pharmaceutical dosage forms is influenced by the conditions of the test. The variables include the type of dissolution apparatus used, kind and rate of agitation employed and volume, composition and temperature of the dissolution fluid. The rate of dissolution varies type of agitation used, degree of laminar and turbulence flow in the system, the shape and design of the stirrer and the physicochemical properties of solid. Dissolution fluid should provide similar invivo conditions in GIT, mainly pH, surface tension, viscosity, volume, deaeration of dissolution medium.