



ANALYTICAL METHOD FOR QUANTIFICATION OF DRUG IN BIOLOGICAL FLUID.

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ABSTRACT:

The analysis of drugs in various biological fluids is an important criterion for the determination of the physiological performance of a drug. Now it is widely accepted that bioanalysis is an integral part of the pharmacokinetic/pharmacodynamic characterization of a novel chemical entity from the time of its discovery and during various stages of drug development, Bioanalytical method employed for the quantitative determination of drugs and their metabolites in biological fluids, plays a significant role in the evaluation and interpretation of bioequivalence, pharmacokinetic (PK). Since plasma is one of the most widely adopted biological fluid in drug discovery and development, the focus of this discussion will be limited to plasma analysis, various chemical and instrumental methods were developed at regular intervals. For this analytical instrumentation and methods play an important role. This shows highlights the role of the analytical instrumentation and the analytical methods in assessing the quality of the drugs. Liquid Chromatography coupled with mass spectrometry (LC-MS) has become the most powerful Analytical tool for screening and identification of drug metabolites in biological fluids. The most frequently used method for quantification is liquid chromatography coupled to different detectors such as mass spectrometer or UV detector. The LC-MS/MS methods are considered as most appropriate for determination of drugs and their metabolites and are also best suited for high throughput analysis.

Keywords: LC-MS, LC-MS/MS, UV DETECTORS,

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