DEVELOPMENT AND VALIDATION OF BIOANALYTICAL SPECTROPHOTOMETRIC METHOD FOR PHARMACOKINETIC STUDY OF CEFPODOXIME PROXETIL MICROEMULSION IN RATS

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ABSTRACT:

A simple and sensitive bioanalytical spectrophotometric method was developed in visible range and validated for the pharmacokinetic study of cefpodoxime proxetil SMEDDS in rats.The method was developed using methanol as solvent and oxidative chromogenic agents to produce color. Cefpodoximeproxetil in methanol was treated with ferric chloride and potassium ferricyanide which produced green color chromagen. The developed method was validated in rat plasma. The maximum absorbance in plasma was found to be at (λmax) 738nm. The method was validated according to USFDA guidelines over the concentration range of 0.1-8µg/mL. The accuracy and the precission of the method were found to be within the limits. The validated method can be applied for the pharmacokinetic study of cefpodoxime proxetil.

KEY WORDS: Cefpodoxime proxetil, SMEDDS, method validation, USFDA guidelines.