ABSTRACT

Day by day numbers of new drugs are introduced into market. Frequently, there is bigger time period between date of presentation of medication into business sector and date of its incorporation in pharmacopeias. Different marketed formulations are available in combined dosage forms. For accurate quantitative determination of drug of interest in this combination, it is necessary to isolate drugs from impurities, degradants & formulation excipients & analyze separately. So here endeavor has been made to make investigative timetables for determination of Diazepam & Imipramine in mix. goal of work was to make HPLC & HPTLC strategies for concurrent determination of Diazepam & Imipramine in consolidated estimation structure, to recognize proposed HPLC & HPTLC plans as demonstrated by ICH rules to lead pressure corruptions according to ICH prescribed uneasiness conditions & to build up security showing measure system.

Clear, questionable & quality demonstrating two particular chromatographic frameworks, for case, HPTLC & RP-HPLC were made for estimation of Imipramine hydrochloride (IMI) & diazepam (DIA) in their solidified pharmaceutical estimation structure. Clear, questionable & Stability showing RP-HPLC structure was made using C18 range as stationary stage & Methanol & Water (Phosphate support) (75:25) v/v, pH 6.6 adjusted with Potassium Hydroxide as versatile stage. Stream rate was kept up at 1 ml/min & ID was done at 251 nm where Imipramine hydrochloride (IMI) & diazepam (DIA) have focal absorbance. Upkeep times of Imipramine hydrochloride (IMI) & diazepam (DIA) were 2.85 min & 5.25 min. Compelled debasement studies were done & corruption thing tops were all around looked over prescription tops. Structure was perceived & saw to be sensitive, right & amend & unaltering quality appearing. Quality indicating HPTLC structure was made using Silica gel GF254 pre-secured on aluminum sheet (10 cm × 10 cm) of 0.20 mm layer thickness (E. Merck KGaA) as stationary stage & Chloroform: Methanol: Hexane: Glacial Acetic Acid (3:3.5:3.5:0.2 v/v/v/v). Tangle section (RF) estimations of 0.25 ± 0.01 for Imipramine hydrochloride & 0.47 ± 0.05 for diazepam (DIA) was found. Certification was done at 251 nm where Imipramine hydrochloride (IMI) & diazepam (DIA) have basic absorbance. Compelled contamination
studies were done & debasement thing tops were all around browsed cure tops. Structure was grasped & saw to be unstable, right & reexamine & stability indicating. **Keywords:** HPTLC, RP-HPLC, Imipramine hydrochloride (IMI), Diazepam (DIA) Stability Indication RP-HPLC.