

Spectrophometric methods for Simultaneous determination of Valsartan and Nebivolol hydrochloride in combined tablet dosage form

Shradhanjali Singh and Anil Kumar Singh
United Institute of Pharmacy, India

Tablet dosage form accounts for approximately 50% of all dosage form on the market. The majority of tablets are used in the oral administration of drugs, which is the most convenient mode for drug administration. Validation of an analytical procedure is performed in order to demonstrate that the procedure is intended for its use. Analytical method development plays important role in discovery and manufacture of dosage form. Official test methods are used by Quality Control laboratories to ensure the identity, purity, potency and performance of drug product. Spectrophotometric method proved to be simple, fast, & precise, and thus can be used in routine work for the analysis of multicomponent formulation. The tablet dosage form selected is combination of Nebivolol hydrochloride and Valsartan. Two simple, accurate and precise spectrophotometric methods for the simultaneous determination of Valsartan (VAL) and Nebivolol hydrochloride (NEBI) in combined dosage form have been developed and validated. First spectroscopic method employs simultaneous equation method using 247.8 and 280.2 nm as two wavelengths for absorbance measurement using methanol and 0.1N HCl as the solvents. Beer's law is obeyed in the concentration range of 20 – 100 µg/mL and 2.5 – 40 µg/mL for VAL and NEBI, respectively. Second method is based on the determination of "Area under Curve (AUC)" within the wavelength range of 278.2 – 282.2 nm and 245.8 – 249.8 nm. Molar absorptivities, Limit of Detection (LOD) and Limit of Quantitation (LOQ) were calculated. Both methods have been successfully applied for the analysis of these drugs in a pharmaceutical formulation. Results of analysis were validated statistically and by recovery studies.

Biography

Shradhanjali Singh has completed her M Pharm at the age of 24 years from AISSMS College of Pharmacy, Pune University, Maharashtra in 2008. She is working as an assistant professor in United Institute of Pharmacy since last 1.5 years. She has 4 to 5 papers published in reputed journals. She has a life membership of APTI.

singhshradhanjali@gmail.com

An introduction to Automations in Pharmaceutical Industry

Sudheep Goud Sandhil
JSS University, India

Pharmaceutical manufacturing is increasingly competitive, and the ability to guarantee consistent quality, reduce direct manufacturing costs and immediately evaluate test results can be paramount in maintaining a competitive edge. Despite this cost pressure, some production activities and physical tests including the recording of measured results are often performed manually. This manual operations and manually calculated reports make the entire process slow and also create more opportunities for error occurrence and time consuming. Many companies are relentlessly pursuing new technologies and automating the various production and evaluation steps in order to avoid specification input errors, wasted production and long product release processes. The introduction of automation into pharmaceutical production will reduce the cost of manufacture and they will also have an added benefit of greatly reducing the cost of achieving a validated operation and maintaining GMP standards. This present study deals with the automation processes used at various stages of production and inspection systems in pharmaceutical industry. As there is not many automations involved in the manufacture of solids like tablets and capsules when compared to the manufacture and handling of parenteral preparations. Hence my current study emphasizes the importance of automations in parenterals.

Biography

Sudheep Goud Sandhil is presently a student of JSS College of Pharmacy, JSS University Mysore. He has completed his B.Pharm from JSS College of Pharmacy, Mysore. He is presently pursuing his M.Pharm in Pharmaceutical Quality Assurance Programme in the same college. His areas of interests are QMS, GMP, SIX SIGMA, ICH guidelines.