

4th International Summit on

GMP, GCP & Quality Control October 26-28, 2015 Hyderabad, India

Quality control analytical methods - Switch from HPLC to UPLC

Y Padmavathi G Pulla Reddy College of Pharmacy, India

Quality control is an essential operation of the pharmaceutical industry. Drugs must be marketed as safe and therapeutically active formulations whose performance is consistent and predictable. New and better medicinal agents are being produced at an accelerated rate. More exacting and sophisticated analytical methods are being developed for their evaluation of new drug substances and drug products. HPLC plays an important and critical role as a quality control analytical method for qualitative and quantitative analysis in pharmaceutical industries. Moreover, the importance of HPLC uses in these fields falls under the stringent regulations established by the U.S. Food and Drug Administration (FDA). This obligates all pharmaceutical companies to detect the quality of their products by using the HPLC before allowing them to sell it in the global market. Ultra-high performance liquid chromatography (UPLC) has marked revolution by opening new ways for analyst to fetch rapid analytical separation techniques without sacrificing high-quality results obtained earlier by high performance liquid chromatography (HPLC). Innovations in column technology led to evolution of UPLC technology which enables the use of sub-2-µm particle columns, which results in lower flow rates and shorter run times. UPLC methods provide a marked reduction in analysis time, improved resolution, and reduced mobile phase consumption. Methods that run on modern chromatographic systems improve laboratory efficiency and productivity, as well as reducing costs for manufacturing facilities. UPLC technology results in the full benefits of higher throughput, lower costs, and faster time to market for routine analysis of generic drugs.

Biography

Y Padmavathi is working as Professor and HOD, Department Pharmaceutical Analysis and Quality Assurance at G. Pulla Reddy College of Pharmacy, Mehdipatnam, Hyderabad. Her graduation and post-graduation is from Andhra University and completed her PhD from Osmania University. She has 20 years of experience in teaching and guided about 50 MPharm students. She has published more than 20 papers in national and international journals. She is Editorial Board Member of reputed national journals. She is life member of IPA and APTI.

pgundlapalli@yahoo.com

Notes: