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## PDAS–MSD- LC MS- prescriptive drug analysis study in rat plasma for multiple sclerosis disease by LC-ESI/MS

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Prescribing a single drug and its administration is not sufficient in neuro diseases like multiple sclerosis. Combination therapy is growing enormously to decrease the number of medications for a single disease or their associated diseases. In clinical research estimation of concomitant drugs plays a key role to study the drug-drug interactions. The research in the current article has been undertaken to provide an accurate method for evaluate the pharmacokinetic parameters of Carbamazepine (CBZ), Duloxetine (DLX), Tamsulosin (TSL) and Teriflunomide (TFM) using Doxofylline (DXF) and Ibuprofen (IBP) as internal standards (IS) in rat plasma by LC- MS when used as combination therapy. The developed bioanalytical method has been validated according to ICH guidelines. The obtained LODs and LOQs of all the drugs were adequate and may useful to perform the pharmacokinetic study in rat plasma. Based on the results, we can conclude that the present method is suitable for quantification of multiple analytes simultaneously without any interference and matrix effects. The concomitant drug analysis along with the target analyte is more advantageous than single compound analysis and also useful in drug interaction and toxicology studies. This method can also be useful in estimating the plasma samples of patients who administer these drugs.

### Biography

Suneetha Achanti is the Professor & Head of Department of Pharmaceutical Analysis at Hindu College of Pharmacy, Guntur, A.P since 2001. She has completed her PhD from Acharya Nagarjuna University, Nagarjuna nagar. She has total 16 years of teaching and research experience. She has published more than 40 research papers in various reputed National and International journals. She served as BOS member of ANU in Pharmacy during 2010 to 2013. She is recognized as Research Supervisor from Acharya Nagarjuna University for guiding PhD scholars and she is a life member of APTI.

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