

## Method development, validation and simultaneous estimation of metformine, pioglitazone and glibenclamide by RP-HPLC using gliclazide as an internal standard in tablet dosage form

**Anand Kumar R. Tengli**  
JSS College of Pharmacy, India

A simple, sensitive and specific liquid chromatographic method with UV detection (230 nm) was developed for the simultaneous estimation of Metformine, Pioglitazone and Glibenclamide in tablet dosage form and Gliclazide as an internal standard. Separation was achieved with a phenomenex luna 5 $\mu$  CN 100R, 250X4.60 mm 5 micron size column, ambient temperature with a low pressure gradient mode with mobile phase containing acetonitril, water and 0.5% of potassium dihydrogen phosphate buffer pH 2.5 adjusted with orthophosphoric acid (60:20:20). The flow rate was 1 mL min<sup>-1</sup> and eluent was monitored at 230 nm. The selected chromatographic conditions were found to effectively separate Metformine, Pioglitazone and glibenclamide with retention time of 2.2, 2.8 and 5.8 min respectively. The linearity range of Metformine, Pioglitazone and Glibenclamide is found in the range of 50-300  $\mu$ gml<sup>-1</sup>, 1.5-9.0  $\mu$ gml<sup>-1</sup> and 0.5-3.0  $\mu$ gml<sup>-1</sup> respectively. The proposed method was found to be accurate, precise, reproducible and specific and it can also be used for routine quality control analysis of these drugs in combination tablets.

### Biography

Anand Kumar is pursuing his PhD in JSS University, JSS College of Pharmacy Mysore, under the guidance of Dr. B. M. Gurupadayya, Professor Department of Pharmaceutical Chemistry, JSS College of Pharmacy, Mysore. He has published more than 40 papers in reputed journals.

[anandrtengli@rediffmail.com](mailto:anandrtengli@rediffmail.com)