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Estimation of Terizidone in Bulk and Capsule Dosage form by Area Under Curve and First Order Derivative Spectrophotometry

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Abstract : Two simple, precise, rapid, accurate and economical spectrophotometric methods have been developed for the estimation of terizidone in bulk and capsule dosage form. First method was based on measurement of area under curve for spectrum in a wavelength range between 268-278 nm and second method involved first order derivative spectrophotometry at a wavelength 297 nm. The working standards and sample solutions of terizidone were prepared in 0.1 N NaOH. These methods have been validated as per ICH guidelines. The linearity for first method was found in the concentration range of 4-12 µg/ml and the value of correlation coefficient (R^2) was found to be 0.9994. Linearity of second method was found in 4-12 µg/ml concentration and the value of correlation coefficient (R^2) was found to be 0.9994. Distinct (R^2) was found to be 0.9914. The % assay values obtained by both methods were found within acceptance limits. Percent R.S.D. for precision study by both methods were also found to be satisfactory suggested both methods were precise. The accuracy of both methods was assessed by recovery studies and % recovery values were found within acceptance criteria. Thus, proposed methods can be applied for routine analysis of terizidone.

Keywords : Terizidone, UV-Spectrophotometry, Area under Curve, First order derivative, Method validation.

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