A Review Article on Analytical Method on Vericiguat

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Abstract: *Vericiguat is a novel oral soluble guanylate cyclase (sGC) stimulator used in the treatment of chronic heart failure, aimed at reducing hospitalization rates and improving cardiac function by inducing vasodilation. The analysis of Vericiguat in pharmaceutical formulations and biological fluids requires robust and precise analytical methods. High-Performance Liquid Chromatography (HPLC) and UV-Visible Spectrophotometry are the primary techniques employed for this purpose due to their high specificity, sensitivity, and rapid analysis capabilities. This review discusses the development, validation, and application of these analytical methods for Vericiguat. Various HPLC methods have been developed, utilizing different columns, mobile phases, and detection wavelengths to ensure the accurate quantification of Vericiguat in bulk and tablet dosage forms. UV-Visible spectrophotometry has also been employed, offering a simpler and cost-effective alternative for routine analysis. The review consolidates the key parameters and findings of these methods, highlighting their advantages and suitability for the effective analysis of Vericiguat, thereby contributing to quality assurance in pharmaceutical development and therapeutic monitoring.*

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