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Quality Control Analysis of Ramipril Tablet

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Abstract: *Quality control analysis of pharmaceutical tablets is essential to ensure their safety, efficacy, and consistency. In this study, Ramipril tablets, an angiotensin-converting enzyme (ACE) inhibitor widely used in the treatment of hypertension and cardiovascular disorders, were evaluated using standard quality control tests as per pharmacopeial guidelines. The analysis included physical and chemical parameters such as appearance, average weight, thickness, hardness, friability, disintegration time, dissolution, assay, and uniformity of dosage units. Instrumental techniques including UV–Visible spectrophotometry and High-Performance Liquid Chromatography (HPLC) were employed for quantitative estimation of the active pharmaceutical ingredient. The obtained results were compared with official pharmacopeial limits to assess compliance. All evaluated parameters were found to be within the acceptable range, indicating that the tested Ramipril tablets meet the required quality standards. This study confirms the consistency, reliability, and therapeutic suitability of Ramipril tablets, emphasizing the importance of routine quality control testing in pharmaceutical manufacturing.*

Keywords: Ramipril tablets, Quality control analysis, Pharmaceutical evaluation, HPLC, UV–Visible spectrophotometry, Dissolution test, Assay, Tablet parameters, Pharmacopeial standards, Dosage form evaluation

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