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Analytical Development and Validation of UV Spectrophotometric Method of Bisoprolol and Amlodipine in Bulk and Pharmaceutical Dosage Form

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ABSTRACT

Objective: In the present work, A Simple, rapid, sensitive, precise and reproducible specific UV spectrophotometric method for the determination of Amlodipine and Bisoprolol Fumarate in bulk drug and pharmaceutical dosage form were developed and validated**. Methods:** A simple double beam UV spectrophotometric method has been developed and validated with different parameters such as linearity, precision, repeatability, limit of detection (LOD), Limit of Quantification (LOQ), accuracy as per ICH guidelines. **Results:** UV-visible spectrophotometric method, measurement of absorption at maximum wavelength in 10 ml methanol and volume make with water solvent system as reference Amlodipine and Bisoprolol Fumarate were found to be at 237nm and 272 nm respectively. The drug obeyed the Beer's law and showed good correlation. Beer's law was obeyed in concentration range 0.5-2.5µg/ml for Amlodipine and 2-10 µg/ml for Bisoprolol respectively with correlation coefficient was 0.999. The LOD and LOQ of Amlodipine was found to be 0.040 µg/ml and 0.01230 µg/ml, Bisoprolol were found to be 0.1230 µg/ml and 0.5460 µg/ml, respectively. Percentage assay of Amlodipine and Bisoprolol Fumarate in tablets was found to be 100-101%. **Conclusion:** The proposed method is simple, precise, accurate and reproducible can be used for routine analysis of Amlodipine and Bisoprolol Fumarate in bulk and tablet dosage form.

Keywords: UV spectrophotometric method, Amlodipine, Bisoprolol Fumarate, Validation.

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