

List of Contents

Chapter One: Introduction	
1.1 Diabetes mellitus and glimepiride	2
1.2 Hypercholesterolemia and atorvastatin	7
1.3 Calcium channel blocking and atherosclerosis	10
1.4 Hypertension and dyslipidemia: Combination therapy	12
1.5 Pharmacokinetics of amlodipine, atorvastatin, and glimepiride	15
1.5.1 Amlodipine	15
1.5.2 Atorvastatin	16
1.5.3 Glimepiride	17
1.5.4 Amlodipine besylate and atorvastatin calcium combination tablets	18
1.6 Chemical data and structures	19
1.7 Chromatography & method validation	22
1.7.1 HPLC	22
1.7.2 Principle of HPLC	22
1.7.4 Calibration of HPLC instrumentation	22
1.8 Parameters for validation of the analytical HPLC method (USP)	23
1.8.1 Precision	23
1.8.2 System precision	23
1.8.3 Method precision	23
1.8.4 Intermediate precision	23
1.8.5 Linearity	24
1.8.6 Range	24
1.8.7 Accuracy	25
1.8.8 Stability of analytical solution	25
1.8.9 Robustness	26
1.8.10 Peak purity	26
1.8.11 Resolution	26
1.8.12 Theoretical plates	26
1.8.13 Symmetry (Tailing factor)	27
1.8.14 Relative standard deviation	27
1.9 Aim of study	28