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Labetalol Hydrochloride

National Cancer Institute

Source

National Cancer Institute. *Labetalol Hydrochloride*. NCI Thesaurus. Code C63578.

The hydrochloride form of labetalol, a third generation selective alpha-1-adrenergic antagonist and non-selective beta-adrenergic antagonist with vasodilatory and antihypertensive properties. Labetalol competitively binds to alpha-1-adrenergic receptors in vascular smooth muscle, thereby inhibiting the adrenergic stimulation of endothelial cell function and vasoconstriction in peripheral blood vessels. This agent also binds to beta-receptors in the bronchial and vascular smooth muscle, resulting in a decrease in adrenergic stimulation. The result is a decrease in resting and exercise heart rates, cardiac output, and in both systolic and diastolic blood pressure, thereby resulting in vasodilation, and negative chronotropic and inotropic cardiac effects.