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(54) **Title**: REDUCING INTER-PATIENT VARIABILITY OF LEVODOPA PLASMA CONCENTRATIONS

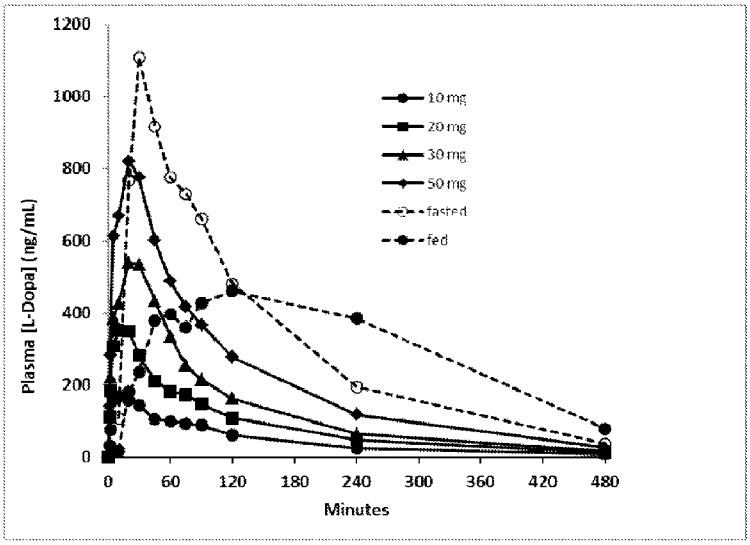


FIG. 1

(57) **Abstract**: The present invention provides methods of reducing the inter-patient variability of levodopa plasma concentrations in a population of Parkinson's disease patients. The methods of the invention comprise pulmonary administration of levodopa at therapeutically effective concentrations such that the inter-patient variability of levodopa plasma concentrations at time periods ranging from about 10 minutes post inhalation to about 60 minutes or more post inhalation have less than a 50% coefficient variation. The methods of the invention are particularly useful for treatment of motor fluctuations which arise as a side effect of L-Dopa therapy.

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