

[54] METHOD FOR DETERMINING THERAPEUTIC DRUG DOSAGE USING BIOELECTRICAL RESISTANCE AND REACTANCE MEASUREMENTS

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[57] ABSTRACT

A method for determining a dosage regimen for a drug. Resistance (R) and reactance (Xc) are measured by bioelectrical impedance analysis with an impedance plethysmograph. Personal characteristics of a subject are ascertained and recorded along with the measured values of R and Xc. A technique for generating equations which relate the measured values of R and Xc and selected personal characteristics to pharmacokinetic parameters such as volume of distribution (V), elimination rate constant (K), and clearance (CL) for a particular drug are provided. These equations are used with the measured values of R and Xc and certain personal characteristics to determine predictive values for the desired pharmacokinetic parameters. These predictive values are then used to determine an appropriate drug dosage regimen for the patient.

11 Claims, 1 Drawing Sheet

