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## Correlation between predicted and measured digoxin serum concentrations.

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### **Abstract**

Measurement of digoxin serum concentration can be useful as a direct guide to the dose appropriate to individual patients. Therefore, we have attempted to predict digoxin serum concentration in 62 patients with a wide range of body weight, age and renal function, using creatinine clearance and individual digoxin dose. Creatinine clearance in each patient was determined by the Cockcroft and Gault method (1). Digoxin clearance was determined by Scheiner's method (2). Once digoxin clearance was determined, the predicted steady-state serum concentration was calculated using general pharmacokinetic principles. Each patient was on digoxin therapy for at least 1 month. Digoxin serum concentration was measured by the newly developed fluorescence polarization immunoassay (FPIA). A linear regression analysis was performed on the data from the predicted and measured serum level which yielded a slope of 0.9463, intercept of 0.0950 and a correlation coefficient ( $r$ ) of 0.9600. The method was found to be very useful to predict digoxin serum levels in overdosed and underdosed patients