Holter monitoring was done prospectively in 50 adult patients of chronic renal failure (CRF) before and during haemodialysis. Frequent premature ventricular contractions (PVC's) were present in 3 (6%), all during dialysis (Gp I). Sporadic PVC's were seen in 6 (12%) and rest 41 (82%) had no PVC (Gp II). Premature atrial contractions (PAC's) were frequent in 5 (10%) (one had precipitation during dialysis), sporadic in 7 (14%) and none in 38 (76%). Ventricular tachycardia (VT) was not seen. Supraventricular tachycardia (SVT) was observed in 5. No biochemical parameter correlated with arrhythmias. There was no correlation between hypotension episodes and arrhythmias. Sinus tachycardia occurred during the third and fourth hours of dialysis. This correlated with hypotensive episodes observed in 13 patients. Episodes of silent myocardial ischaemia (SMI) observed in 12 patients occurred predominantly during this period of tachycardia. Cardiac arrhythmias are infrequent in CRF and are mainly seen in patients with preexisting coronary artery disease with low ejection fractions (EF) (EF 0.37 +/- 0.2 in Gp I and 0.80 +/- 0.1 in Gp II P < 0.01) and abnormal Q waves in baseline ECG. They do not seem to contribute to occurrence of episodes of dialysis induced hypotension.