Aim: Variations in serum prolactin concentrations have been shown to be associated with adverse CV profiles, but clear relationships are poorly known. Subjects & Methods: A group of older PHC patients with multiple chronic conditions (n=93, median age 69, M35, F58) were assessed on serum prolactin concentrations, according to a set of CV risk factors, including: age and sex (M,F, 65, ≥65), serum cholesterol (≥6.5, 6.5), the diagnosis of hypertension and diabetes type 2 (including impaired glucose tolerance), BMI (25, 25-29, ≥30), low level chr inflammation expressed by quartiles of CRP values, mild cognitive impairment measured by using MMSE (25, ≥25) and renal function expressed by quartiles of creatinine clearance values. All subgroups were additionally checked on a difference in their age status. Non-parametric M-W and K-W ANOVA tests were used to assess the significance of differences. Results: Significant differences in serum prolactin concentrations were found according to the sex and age distribution, indicating towards higher serum prolactin concentrations in older age (Median values M65, F65, M≤65, F≤65 were as follows: 121.25, 103.26, 44.15 and 72.27 mIU/L) and when subjects were stratified according to their renal function, indicating that impaired renal function (≤1,405 ml/s) might be associated with elevated serum prolactin concentrations. Subjects with lower renal functions were also significantly older. Conclusions: Impaired renal function, independently, or due to older age, can be associated with elevated serum prolactin concentrations. Key words: prolactin, older age, cardiovascular risk factors