Introduction. Prostate-specific antigen (PSA) levels in the normal range are dependent from testosterone (T) activity. Since PSA measurement is routinely required by general practitioners, it could be a good candidate as a marker of T biological activity in men. The aim of the present study is verify whether, in a large sample of male subjects seeking medical care for sexual dysfunction (SD), PSA might represent a reliable marker of T bioactivity.

Methods. A consecutive series of 3156 patients attending our Unit for SD was studied. Among them, only subjects without history of prostate disease and with PSA levels <4 ng/mL (n=2967) were analyzed. Main outcome measures. Several hormonal and biochemical parameters were studied, along with structured interview on erectile dysfunction (SIEDY), ANDROTEST and PsychoANDROTEST.

Conclusions: PSA is a marker of T biological activity and it may represent a new tool in detecting clinically relevant hypogonadism. The single determination of PSA levels might give insights not only on the circulating levels of total T, but also on its active fractions and, most importantly, on its biological activity.