

PSA use and incidence of prostate biopsy in the Tuscany region: is opportunistic screening discounting biopsy in subjects with PSA elevation?

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ABSTRACT

Aims and background. To assess PSA use in the general population and estimate biopsy rate subsequent to opportunistic screening.

Methods and study design. We report on PSA testing and related prostate biopsy frequency in the Tuscany Region during 2004-2005 to establish current patterns of care. We used population data sources to survey PSA testing and biopsy and estimated expected PSA values and expected recommended biopsies (\geq PSA 4 ng/ml) from the ongoing Florence arm of the European Study of Screening for Prostate Cancer (ERSPC).

Results. PSA testing was common for both years and across age groups, increasing with age and peaking at 70-74 years (37.6% in 2004, 41.9% in 2005) and increasing over the 2 years. PSA use in the 55-69 years cohort (screening age in ERSPC) was 28.3% in 2004 and 30.4% in 2005. Repeat PSA testing was also common and repeat PSA probability increased with age, peaking at age 70-74 (60.9%); repeat PSA testing at age 55-69 was 53.7%. Overall, 1.3% and 1.2% of men had a biopsy following PSA testing in 2004 and 2005. Observed/expected biopsy incidence was 14.3% in 2004 and 13.2% in 2005. ERSPC compliance to recommended biopsy was 77% or 60% at first or repeat screening.

Conclusions. A discordance was identified between high PSA testing prevalence and low prostate biopsy rate. Based on projections from the ERSPC, this indicates a much lower observed biopsy rate than expected in organized screening. Although the implications of this are difficult to quantify in the absence of evidence on screening efficacy, it suggests inefficient practice.

Key words: prostate biopsy, prostate cancer, prostate-specific antigen, screening.

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