

Physician clinical experience and inappropriate prostate specific antigen screening: evidence from an Asian country

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摘要

Abstract

PURPOSE: We investigated the relationship between physician clinical experience and inappropriate prostate specific antigen testing using a Taiwan nationwide population based data set. We used physician age as a surrogate for general practice experience and the frequency of ordered prostate specific antigen tests as a surrogate for procedure specific experience. **MATERIALS AND METHODS:** This study used data sourced from the 2005 Taiwan National Health Insurance Research Database. We extracted all patients who underwent prostate specific antigen tests in 2005 and their corresponding physicians. A total of 24,595 patients and 2,086 physicians were included. Physician age was categorized into 8 age groups of younger than 31, 31 to 35, 36 to 40, 41 to 45, 46 to 50, 51 to 55, 56 to 60 and 60 years or older. Physicians were divided into 4 groups according to the frequency of prostate specific antigen tests ordered in 40 to 75-year-old patients, including low frequency--less than 1 case per 3 months, medium--between 1 in 3 months and 1 per month, high--between 1 per month and 1 per week, and very high--greater than 1 per week. **RESULTS:** In sampled physicians the mean +/- SD rate of inappropriate prostate specific antigen test use was 30.8% +/- 36.6%. Multiple regression analysis showed that after adjusting for other factors physicians who ordered fewer prostate specific antigen tests (those in the low and medium frequency groups) had a higher rate of inappropriate PSA test use than their counterparts who ordered prostate specific antigen tests with very high frequency (each $p < 0.001$) Furthermore, physicians in the age groups 30 years or younger and 31 to 35 years had higher rates of inappropriate prostate specific antigen testing than their counterparts in the 41 to 45-year-old group ($p = 0.019$ and 0.010 , respectively). **CONCLUSIONS:** The likelihood of inappropriate prostate specific antigen screening was significantly and negatively associated with physician clinical experience.