

Melanoma Risk Model To Be Used by Primary Care Providers for Screening Procedures.

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Abstract

Background. Routine screening for melanoma with complete skin exams is controversial at this time because of high costs and error rates. There is agreement that instead of routine screening, primary care providers can play an important role by identifying individuals at high risk who should then undergo a complete skin examination by an expert.

Objective. To assist the primary care provider, we developed a method to estimate the chance of developing melanoma over the next five years for a patient of a given age and risk factors.

Design and measurements. Data were analyzed from 718 non-Hispanic white patients with invasive cutaneous melanoma from melanoma clinics in Philadelphia and San Francisco. Matched controls were 945 patients from outpatient clinics with similar catchment areas.

Results. We identified characteristics that easily can be obtained during a new patient or a follow-up exam. Host characteristics included skin complexion and sunburn type as reported by the patient and presence of large nevi or small nevi on examination of only the back. Measures of sunlight exposure and response included any blistering sunburn, degree of freckling on the back, and solar damage on the back. Models yielded an attributable risk of 84% for men and 95% for women, using only seven of these variables. The estimation of five-year melanoma risk uses factors that can be easily and quickly ascertained during a routine physical exam.

Conclusions. With such a two-stage screen, a smaller number of complete examinations would be required; fewer experts would be needed; and the proportion of negative complete examinations would be reduced.