Preventing Skin Cancer

Findings of the Task Force on Community Preventive Services on Reducing Exposure to Ultraviolet Light

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SUMMARY

Rates of skin cancer, the most common cancer in the United States, are increasing. The most preventable risk factor for skin cancer is unprotected ultraviolet (UV) exposure. Seeking to identify effective approaches to reducing the incidence of skin cancer by improving individual and community efforts to reduce unprotected UV exposure, the Task Force on Community Preventive Services conducted systematic reviews of community interventions to reduce exposure to ultraviolet light and increase protective behaviors. The Task Force found sufficient evidence to recommend two interventions that are based on improvements in sun protective or “covering-up” behavior (wearing protective clothing including long-sleeved clothing or hats): educational and policy approaches in two settings—primary schools and recreational or tourism sites. They found insufficient evidence to determine the effectiveness of a range of other population-based interventions and recommended additional research in these areas: educational and policy approaches in child care centers, secondary schools and colleges, recreational or tourism sites for children, and workplaces; interventions conducted in health-care settings and targeted to both providers and children’s parents or caregivers; media campaigns alone; and communitywide multicomponent interventions.

Counseling to Prevent Skin Cancer

Recommendations and Rationale of the U.S. Preventive Services Task Force

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SUMMARY

. . . The U.S. Preventive Services Task Force (USPSTF) finds insufficient evidence to recommend for or against routine counseling by primary care clinicians to prevent skin cancer. Although counseling parents may increase children’s use of sunscreen, the USPSTF found little evidence to determine the effects of counseling on the sun protection behaviors of adults. These behaviors include wearing protective clothing, reducing excessive sun exposure, avoiding sun lamps and tanning beds, or practicing skin self-examination.

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CLINICAL CONSIDERATIONS

• Using sunscreen has been shown to prevent squamous cell skin cancer. The evidence for the effect of sunscreen use in preventing melanoma, however, is mixed. Sunscreens that block both ultraviolet A (UV-A) and ultraviolet B (UV-B) light may be more effective in preventing squamous cell cancer and its precursors than those that block only UV-B light. However, people who use sunscreen alone could increase their risk for melanoma if they increase the time they spend in the sun.

• UV exposure increases the risk for skin cancer among people with all skin types, but especially fair-skinned people. Those who
sunburn readily and tan poorly, namely those with red or blond hair and fair skin that freckles or burns easily, are at highest risk for developing skin cancer and would benefit most from sun protection behaviors. The incidence of melanoma among whites is 20 times higher than it is among blacks; the incidence of melanoma among whites is approximately four times higher than it is among Hispanics.

- Observational studies indicate that intermittent or intense sun exposure is a greater risk factor for melanoma than chronic exposure. These studies support the hypothesis that preventing sunburn, especially in childhood, may reduce the lifetime risk for melanoma.
- Other measures for preventing skin cancer include avoiding direct exposure to midday sun (between the hours of 10:00 a.m. and 4:00 p.m.) to reduce exposure to ultraviolet (UV) rays and covering skin exposed to the sun (by wearing protective clothing such as broad-brimmed hats, long-sleeved shirts, long pants, and sunglasses).
- The effects of sunlamps and tanning beds on the risk for melanoma are unclear because of limited study design and conflicting results from retrospective studies.
- Only a single case-control study of skin self-examination has reported a lower risk for melanoma among patients who reported ever examining their skin over 5 years. Although results from this study suggest that skin self-examination may be effective in preventing skin cancer, these results are not definitive.

**RECOMMENDATIONS OF OTHERS**

The American Cancer Society, the American Academy of Dermatology, the American Academy of Pediatrics, the American College of Obstetricians and Gynecologists, and a National Institutes of Health consensus panel all recommend patient education concerning sun avoidance and sunscreen use. The American Academy of Family Physicians recommends sun protection for all with increased sun exposure. The American College of Preventive Medicine (ACPM) concluded that sun-protective measures (e.g., clothing, hats, opaque sunscreens) are probably effective in reducing skin cancer but that the evidence does not support discussion of sunscreen and sun protection with every patient. ACPM concluded that evidence is insufficient to advise patients that chemical sunscreens protect against malignant melanoma and that their use may actually lead to increased risk. Recently, the International Agency for Research on Cancer (IARC), part of the World Health Organization, qualified their recommendation for sunscreen use in ways that address the importance of learning more about potential harms of counseling for sunscreen use as follows:

Sunscreens probably prevent squamous-cell carcinoma of the skin when used mainly during unintentional sun exposure. No conclusion can be drawn about the cancer-protective activity of topical use of sunscreens against basal-cell carcinoma and cutaneous melanoma. Use of sunscreens can extend the duration of intentional sun exposure, such as sunbathing. Such an extension may increase the risk for cutaneous melanoma.

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2 text boxes, 19 references (1-18, 28) omitted; original references 19-27 renumbered 1-8 below for presentation in this redaction.

### REFERENCES