Skin Cancer Control In the Primary Care Setting

Are We Making Any Progress?

In this issue of *JGIM*, two studies assess the frequency of skin cancer control practices performed by primary care physicians.[1,2] In the first study, Oliveria et al. report that the frequency of primary care physicians' performance of skin cancer prevention and early detection practices is low compared to their performance of other common preventive practices.[1] The authors based their conclusions on 1997 National Ambulatory Medical Care Survey data from 784 nonillness related patient visits to 109 family practitioners and 330 internists. Potential explanations for the study findings include under-reporting of skin cancer control practices, over-reporting of the other preventive practices, or lower rates of skin cancer control practices compared to other preventive practices. Because it is unlikely that the documentation of skin cancer counseling and skin examinations would differ so dramatically from the documentation of all the other preventive practices, the latter explanation is the most plausible. These findings are surprising in light of the potential benefit of skin cancer prevention and early detection. They are consistent, however, with the results of previous studies showing low rates of physician-reported skin cancer control practices.[3,4]

Why do primary care physicians perform skin cancer control practices, in particular, skin examinations, so much less frequently than other screening exams and procedures? There are several explanations. Lack of physician confidence and inadequate training have both been identified as important barriers.[5] Several studies have documented that compared to dermatologists, primary care physicians are not as skilled at distinguishing problem skin lesions from benign skin lesions.[3,6,7] Citing this data, the U.S. Preventive Services Task Force recommends that high-risk patents be considered for referral to dermatologists for total body skin exam and does not recommend routine screening exams by primary care physicians.[8] Second, because there are no randomized control trials documenting the benefits of skin cancer prevention and early detection, there are conflicting recommendations by professional organizations.[8] Both the lack of evidence and the lack of consensus are likely contributing to less frequent performance of skin cancer control practices by primary care physicians. Finally, physicians may be targeting their skin cancer control practices to patients with risk factors for skin cancer. Physicians report performing skin cancer control practices more frequently with patients they believe to be at increased risk,[3] an approach which has been advocated by several professional organizations.[8] Although Oliveria et al. excluded visits of nonwhite patients at lower risk for skin cancer, they did not further characterize the risk of patients whose visits were included. A high proportion of low-risk patient visits therefore could have resulted in the lower frequency of skin cancer control behaviors compared to other preventive behaviors.

In the second paper in this issue of *JGIM*, Mikkilineni et al. describe the impact of a two-hour Basic Skin Cancer Triage Curriculum on the frequency of skin cancer control practices by a convenience sample of 29 primary care providers.[2] The two-hour curriculum, which was designed to increase primary care providers' ability to accurately triage skin lesions and counsel patients on skin cancer issues, was also associated with increases in physician self-reported skin cancer control practices. In addition, interviews of a subset of the providers' patients showed that a higher proportion of patients reported that their physician performed a total skin examination post-intervention compared to pre-intervention. While these findings are encouraging, they should be interpreted with caution, as there are several study limitations. Specifically, there was no control group, the providers were self-selected, and the number of providers studied was small. Further study is necessary to evaluate whether these results are reproducible in other settings, and if so, whether the behavior change is sustainable. Studies in other areas of preventive medicine have suggested that education alone is often not effective in improving performance of preventive services, and that sustained efforts may be required to modify established patterns of practice.[9–12]

Documenting the frequency of skin cancer control practices performed by primary care physicians may be important for establishing benchmarks for future comparisons. The first goal of improving skin cancer control practices by primary care providers, however, should not be just to increase the frequency of such behaviors, but more importantly, to improve the targeting of these practices to those patients who will benefit the most. The second goal should be to improve the skill and accuracy of primary care providers in the screening, diagnosis, and triaging of skin lesions suspicious for skin cancer. Primary care physicians will never be able to achieve the skill of dermatologists in the diagnosis and management of skin disease. If they are to effectively screen for skin cancer, however, they need to, at a minimum, approach the level of competency of dermatologists in the triaging of skin lesions for further evaluation.

There have been a growing number of studies evaluating the effectiveness of skin cancer control training programs for primary care residents and physicians.[2,13–16] Two recent studies published in earlier issues of *JGIM* should be highlighted. Gerbert et al. conducted a randomized, controlled trial to determine whether a brief,

multi-component intervention could improve the skin cancer diagnosis and evaluation planning of primary care residents.[15] They demonstrated that a highly focused, targeted education program could improve the skin cancer diagnosis and triage decisions by primary care residents to a level equivalent to that of the dermatologist. In another study, Harris et al. evaluated the effectiveness of an innovative internet-based continuing medical education program.[16] In six weeks, more than 350 physicians voluntarily completed this computer-based course on skin cancer. Use of the program was associated with significant improvements in physician confidence, knowledge, and clinical skills

Primary care physicians are in an ideal position to implement both skin cancer prevention and early detection into their practices. Over 79% of persons in the U.S. visit their primary care doctor at least once a year.[17] In a study of patients diagnosed with malignant melanoma, 87% stated that they had regular physicians, 63% had seen those physicians in the year prior to diagnosis, but only 24% had regular dermatologists.[18] Despite the potential for effectiveness, studies by Oliveria et al. and others show that skin cancer control practices are performed less frequently than other preventive practices.[1,3,4] Lack of training has been identified as one of the major barriers to performing these practices. We now have data that suggest that skin cancer control training programs can increase the frequency of these practices as well as improve primary providers' skin cancer control attitudes, knowledge, and clinical skills.[2,15,16] Consideration should be given to incorporating skin cancer control educational programs, modeled after successful interventions, into the primary care curriculum of medical schools and residency programs. Where lecture, classroom based formats are likely to be less effective, innovative strategies such as computer-assisted learning devices could be used to disseminate CME forums to a large number of practicing physicians. Future directions of study include: 1) continuing efforts to improve and refine skin cancer control educational programs for primary care residents and physicians; 2) developing interventions to increase targeted skin cancer control practices by primary care physicians; and 3) developing uniform standards by which the competency of physicians' screening skin exam and triage skills could be measured. Finally, once the efficacy of interventions aimed at improving the frequency and quality physicians' skin cancer control practices has been clearly established, there will be a need for studies evaluating the impact of these efforts on patient care and skin cancer outcomes. —

NANCY C. DOLAN, MD, *Division of General Internal Medicine, Northwestern University Medical School, Chicago, Ill.*

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