Commentary: The incidence of nonmelanoma skin cancer

Can we make an impact?

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In this issue of the Journal, Olsen et al report a change in incidence trends and demographics for nonmelanoma skin cancers (NMSCs) in Australia over the last decade. Given that excision is the most common method of NMSC removal in that population, the authors used rates of primary excision of biopsy-proven NMSC to indirectly measure incidence. They found that although overall incidence was increasing, there was a significant decrease in annual incidence rates for women and men younger than 45 years, which may suggest that a positive impact from the Australian skin cancer public education campaigns is beginning to be felt.

The conclusions of this article lead to the consideration of 2 important questions on how US efforts can lead to a similar outcome. First, how can we better measure incidence of NMSC to accurately evaluate the effectiveness of our prevention programs and, based on the data obtained, how can we optimize our prevention efforts to ensure that they have the greatest impact.

US-based studies using indirect measurements similar to those used by Olsen et al show that NMSC has significant public health ramifications and incidence continues to increase. Using Medicare procedural data (primarily for persons age ≥65 years), US NMSC incidence increased 77% from 1992 to 2006 with an estimated 3.5 million cases occurring in 2006 in the Medicare population alone. There are more NMSCs in the United States than all other cancers combined and 1 in 5 people in the United States will develop this cancer during their lifetime.

Underreporting of skin cancer is a significant impediment to gathering accurate incidence data. Current US data collection programs such as Surveillance, Epidemiology, and End Results (SEER) depend on hospital reporting for the majority of their data. Unlike other major cancers in which patients and/or their specimens reach a hospital or a hospital-based laboratory during their early treatment, patients with skin cancer are most often treated as outpatients and their specimens are often sent to community laboratories. In the nondermatology setting, suspected NMSC may be removed by local destruction without a biopsy being performed. Underestimation of the actual numbers of NMSC can lead to an understating of the costs and morbidity associated with these cancers, a lack of understanding by government and the press (as evidenced by a recent *New York Times* article) of the impact that these cancers have, and an underappreciation of the critically important patient care that dermatologists provide.

To establish a benchmark to assess the effectiveness of our efforts, there needs to be an accurate method used for determining the actual number of cases and the impact on our health care system. Medicare Center for Medicare Services (CMS) data are a start, but given the fact that the median skin cancer age is decreasing and many skin cancers are diagnosed before Medicare age, a significant gap in data collection still exists. Other countries have been successful in developing effective comprehensive national registries for NMSC. The time has come for the United States to initiate a similar national registry program using new information systems to collect more complete data on stage, other prognostic indicators, comorbidities, and treatment to provide more definitive and detailed information on the population effects of NMSC control.

The implementation of an effective public awareness program will be equally critical to have a significant impact on this cancer. Given that the causative factors for the majority of NMSC are

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known, how should a comprehensive program to lower incidence be structured?

Controversies exist on how a skin cancer prevention program should be organized. Primary prevention efforts (sun-protective behaviors) lead to decrease in incidence whereas secondary prevention activities (encouraging having a suspicious spot checked) lead to earlier detection of tumors and subsequent decreased treatment costs. Given the importance of both of these issues, both aspects need to be incorporated within an optimal strategy.

For prevention efforts to be effective there needs to be a national coordinated program versus the current mosaic where the activities of many well-meaning groups can sometimes be at cross-purposes. A clear direct message is needed with specific items (eg, sun protection, have suspicious spots checked) that can be easily translated into individual action. Adequate resources need to be obtained from government and private sources to ensure that the program will have a significant impact.

At the end of the day, what do we need to be successful? Incidence trends in the United States have historically followed those in Australia within 5 to 10 years so there is hope. A national registry using state-of-the-art data collection techniques to better count NMSC cases and a coordinated focused national program to optimize outcomes for prevention and early detection must be developed. These programs need to lead to decreased morbidity, lower overall treatment costs, and fewer negative public health effects. In this age of health care cost concerns, cost-effectiveness of these programs will have to be proven. Challenges to obtaining the resources to develop and implement these initiatives will have to be overcome. And, perhaps most importantly, dermatologists and the American Academy of Dermatology must be at the forefront of these efforts to apply our special expertise and augment our leadership in this arena, which will also enhance the public’s perceptions of our genuine deeply held concerns about patient health.

REFERENCES