



Michael E. Ming, MD, MSCE, FAAD, is associate professor of dermatology at the University of Pennsylvania.

Clinical Pearls

Clinical Pearls help prepare residents for the future by providing them with insights about what they should know about a specific subject area by the time they complete their residency.

Melanoma

By Michael E. Ming, MD, MSCE, FAAD

Pearl #1: Melanoma incidence rates are decreasing in younger patients. Melanoma incidence rates are still increasing in the United States for older populations, but the incidence rate for patients younger than 40 years of age has been trending downward since 2006. Similar decreases in melanoma incidence have been replicated in independent U.S., European, and Australian databases, suggesting that this is a real change as opposed to a statistical or database quirk. It is possible that our public health messaging over the past few decades about the dangers of sun exposure may have had an effect. I see a lot more people in long-sleeved shirts and under tents at the beach now than in the past. Counseling patients about sun protection takes time during the visit, but it may have a major impact.

Pearl #2: For a large, clinically obvious melanoma, biopsying the entire lesion may not be crucial. As a dermatology resident and a dermatopathology fellow, I was taught that a melanocytic lesion is ideally biopsied in its entirety so the dermatopathologist can evaluate the whole lesion. However, removing a several-centimeter lesion can be challenging in the middle of a busy clinic. These large lesions are also often obvious melanomas clinically. In many cases, these lesions are also quite atypical microscopically, and diagnosing a melanoma is straightforward for the dermatopathologist even if the entire lesion is not submitted. For large lesions, I often take two or three 6- to 8-mm punch biopsies of the portions that are likely to have the greatest Breslow thickness to assist in formulating the management plan. If necessary, the rest of the lesion can be removed in its entirety for diagnostic purposes later.

Pearl #3: Patients on immunotherapy for metastatic melanoma who are doing well should continue to have skin exams for new primary lesions. Many patients with metastatic melanoma are on immune checkpoint inhibitor (ICI) therapy that affects the immune system globally as opposed to receiving a therapy targeted toward the specific properties of their original melanoma. The question has therefore arisen whether such immunotherapy would reduce the risk of developing new primary melanomas enough that these patients can forego routine skin exams. However, Dr. Michael Marchetti's team at Memorial Sloan Kettering Cancer Center report in *JAMA Dermatology* that patients on ICI therapy for

metastatic melanoma still develop new primary melanomas at a rate of 1.1% per patient-year. That rate is high enough that I continue standard skin examination schedules for patients on systemic therapy who are otherwise doing well.

Pearl #4: For patients with concerns about the potential harm of sunscreens, I often recommend zinc oxide lotion or cream. There have been several articles in the lay press about potential dangers from chemical sunscreens, both to the marine environment after they wash off the patient's skin into the ocean and, theoretically, for the user, as sunscreen ingredients can get absorbed through the skin. In addition, concerns have been raised about inhaled titanium dioxide as a possible carcinogen. For patients with concerns, I suggest that they use zinc oxide lotion or cream, which has no associated potential health risks of which I am aware.

Pearl #5: Consider scheduling the patients with the most complex mole patterns as the last patient of the day. Although some skin examinations are very straightforward, some patients have hundreds of pigmented lesions. It can be challenging to have such patients clustered on the schedule, both in terms of staying on time and maintaining focus. Scheduling these patients as the very last appointment of the day avoids both those issues. **DR**

References:

1. Paulson KG, Gupta D, Kim TS, et al. Age-Specific Incidence of Melanoma in the United States. *JAMA Dermatol.* 2020;156(1):57-64. doi:10.1001/jamadermatol.2019.3353
2. Helgadottir H, Mikiver R, Schultz K, et al. Melanoma Incidence and Mortality Trends Among Patients Aged 59 Years or Younger in Sweden. *JAMA Dermatol.* 2024;160(11):1201-1210. doi:10.1001/jamadermatol.2024.3514
3. Aitken JF, Youlten DR, Baade PD, et al. Generational Shift in Melanoma Incidence and Mortality in Queensland, Australia, 1995-2014. *International Journal of Cancer.* 2018;142(8):1528-1535. doi:10.1002/ijc.31141
4. Nanda JK, Dusza SW, Navarrete-Dechent C, Liopyris K, Marghoob AA, Marchetti MA. Incidence of New Primary Cutaneous Melanoma in Patients With Metastatic Melanoma Treated With Immune Checkpoint Inhibitors: A Single-Center Cohort Study. *JAMA Dermatol.* 2021;157(1):79-83. doi:10.1001/jamadermatol.2020.3671.
5. Just-Sarobé M. Sunscreens and Their Impact on Human Health and the Environment: A Review. *International Journal of Dermatology.* 2025; doi:10.1111/ijd.17800.