

Skin Cancer Screening and Prevention During the COVID-19 Pandemic

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PRACTICE POINTS

- It is important for dermatologists to maintain skin cancer screening and prevention efforts during the coronavirus disease 2019 pandemic.
- Patient populations at increased risk for skin cancer should be prioritized for in-person evaluations, but teledermatology should be considered for initial examination in new patients and patients at average risk for skin cancer.
- Teledermatology presents a learning curve for dermatologists and patients, but the confidence level will increase, and evidence-based data will pave the way to enhance this experience.

On March 11, 2020, the World Health Organization declared the outbreak of coronavirus disease 2019 (COVID-19) a pandemic, leading to an abrupt widespread shift to teledermatology, with postponement of non-essential in-office medical and surgical services, according to American Academy of Dermatology (AAD) recommendations.¹ Perspectives have been offered regarding skin cancer management during the pandemic²; however, the current literature is lacking guidance on skin cancer screening and prevention during the COVID-19 era.

Preliminary data show a 34.3% reduction in skin cancer referrals from February to April 2020 compared to the same period in 2019. The authors also presented a subsequent reduction in the number of skin cancer diagnoses in March 2020 compared to March 2019.³ Although the COVID-19 public health emergency should be prioritized by all health care workers, the duty to maintain disease prevention remains.

We aim to provide recommendations for this urgent topic. Our goal is finding balance in preventing an increase

in the incidence of and mortality from skin cancer that results from delayed detection, while conserving personal protective equipment and minimizing exposure, by patients and clinical personnel, to the severe acute respiratory syndrome coronavirus 2. A primary benefit of skin cancer screening lies in the ability to detect melanoma, which is associated with higher mortality than the more common nonmelanoma skin cancers, basal and cutaneous squamous cell carcinomas. We place preeminence on screening directed toward detecting melanoma. The main screening method that dermatologists employ is the total-body skin examination (TBSE). Another widely encouraged and utilized component in skin cancer prevention is patient education, emphasizing avoidance of risk factors, undertaking protective factors, and providing clear instructions for performing the patient-led skin self-examination (SSE).

Teledermatology Essentials for Skin Cancer Screening

Arguably, dermatology possesses the most potential for successfully utilizing telemedicine. Teledermatology has become widely implemented across the United States, secondary to the implications of the current pandemic. A report by Perkins and colleagues⁴ provided a positive outlook in the preliminary transition to teledermatology beginning in March 2020, though reported time of use was relatively short (3 weeks). A May 2020 article in *Dermatology News* provided tips for implementing telemedicine for practices.⁵

We agree with the comprehensive screening algorithm for teledermatology presented by Perkins and colleagues⁴ (Figure 1A in their report) and recommend the following for the screening and prevention of skin cancer:

- Patients with any characteristics of increased risk, including a personal or family history of melanoma, large congenital nevi, many melanotic nevi, dysplastic nevi, and Fitzpatrick skin types I and II,⁶ should be prioritized for an in-person visit for TBSE.

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- Immunosuppressed patients, particularly organ transplant recipients and those with a history of skin cancer, should be prioritized for an in-person visit for TBSE.

- Established patients evaluated and determined to be at average risk for skin cancer should be offered a teledermatology visit. Suspicious findings during these visits should be prioritized for an in-person visit, with subsequent biopsy and follow-up.

- New patients should be offered a teledermatology visit.

These recommendations must be reviewed alongside each patient's risk for travel and being present in person as well as other factors that might place the patient at increased risk for COVID-19.

Total-body skin examination, a widely used tool in the dermatologist's tool kit, presents minimal risk to patients while providing important data for each dermatology patient's profile, ultimately directing patient care. The role of TBSE in skin cancer screening and prevention has been in discussion even prior to the current pandemic. The US Preventive Services Task Force (USPSTF) has not declared a role for TBSE in recent years; however, USPSTF recommendations are formulated using data from all forms of screening, not only dermatologist-led interventions. Accordingly, USPSTF recommendations target primary care. The AAD has released statements addressing the role of TBSE and skin cancer prevention in the past, when necessary, to provide clarity.⁷

There is no clear definition of SSE or guidelines on how to educate a patient to perform regular SSE; however, the AAD provides patients with resources on how to perform an SSE.⁸ Just as dermatologists would provide education, advice, and guidance by directing patients to the AAD website for the SSE during an in-person visit, we encourage dermatologists to continue this practice during all teledermatology visits.

The role of teledermatology in skin cancer screening and prevention is limited; dermatologists will not be able to adequately perform TBSE as it would be done at in-person visits. Furthermore, the true implications of teledermatology compared to in-person visits during the COVID-19 pandemic have yet to be realized and analyzed. It is nonetheless important to appreciate that teledermatology holds great promise of benefit in skin cancer prevention, especially in the form of patient education by dermatologists. Practices in the realm of screening and prevention by health care professionals should be continually addressed during the pandemic; it is important to consider the implications associated with delays in diagnosis and treatment.

Teledermatology Limitations and Recommendations for High-Quality Visits

A benefit of video consultation (VC) vs telephone visits is visual interaction—the crux of dermatology. A 2019 study investigated VC experiences among providers and patients in the primary care setting. Benefits of VC were reported to include convenience for working patients and

patients with mobility or mental health problems, visual cues, building rapport, and improving communication.⁹

Despite these benefits, VC is not without limitations. Many technical factors create variability in the quality of teledermatology VCs for a melanocytic lesion, including patient environment and lighting, color distortion, video resolution, and Internet connection. We make the following recommendations:

- **Environment:** Locate or create a dedicated space for teledermatology visits that is well lit, private, and has minimal background noise. Place the device on a level surface, center yourself in the frame, and keep the camera at eye level.

- **Lighting:** Use neutral lighting, placing the light source in front of you but behind the camera of the device. Avoid placing light sources, such as a window, behind you.

- **Video resolution:** Regardless of the type of camera (eg, integrated webcam, external camera), close out all other running software programs to optimize bandwidth during the visit.

- **Internet connection:** Use a wired connection (via an Ethernet cable) instead of a Wi-Fi connection to greatly decrease the chance of losing the connection during the visit. It also is faster than Wi-Fi.

- **Addressing specific lesions:** Patients should keep the device in place, repositioning themselves to show the lesions rather than moving the device by hand.

- **Video capacity:** Test your device's video capacity beforehand, which can be as simple as video-calling a family member or friend from your designated space. Feedback regarding video and audio quality will help fine-tune your setup.

- **Instructions to the patient:** Provide clear instructions to the patient when photographs of specific lesions are needed for further review. Specify what view(s) you need and whether size or bilateral comparison is needed. A web post by VisualDx¹⁰ provides advice to patients on taking high-quality photographs.

Final Thoughts

Teledermatology indubitably presents a learning curve for dermatologists and patients. As with other technological advances in society, we are optimistic that, first, the confidence level in teledermatology use will increase, and, second, evidence-based data will pave the way to enhance this experience. We realize the inherent limitation of accessibility to certain technologies, which is regrettably far from equitable. Patients need a personal device equipped with audio and video; access to a high-quality Internet connection; some degree of technological literacy; and a quiet private location.

We hope to learn from all experiences during the current pandemic. Future innovation in teledermatology and in telemedicine generally should aim to address technological inequities to allow for the delivery of quality care to as many patients as possible.

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