

Optimizing Patient Care With Teledermatology: Improving Access, Efficiency, and Satisfaction



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PRACTICE POINTS

- Incorporation of telemedicine into dermatologic practice can improve patient access, reduce costs, and offer dermatologists flexibility and improved work-life balance.
- Patient satisfaction with telemedicine is exceedingly high, and teledermatology may be particularly well suited for caring for patients with nail disorders.

Telemedicine interest, which was relatively quiescent prior to the COVID-19 pandemic, has surged in popularity in the past few years.¹ It can now be utilized seamlessly in dermatology practices to deliver exceptional patient care while reducing costs and travel time and offering dermatologists flexibility and improved work-life balance. Teledermatology applications include synchronous, asynchronous, and hybrid platforms.² For synchronous teledermatology, patient visits are carried out in real time with audio and video technology.³ For asynchronous teledermatology—also known as the store-and-forward model—the dermatologist receives the patient's history and photographs and then renders an assessment and treatment plan.² Hybrid teledermatology uses real-time audio and video conferencing for history taking, assessment and treatment plan, and patient education, with photographs sent asynchronously.³ Telemedicine may not be initially intuitive or easy to integrate into clinical practice, but with time and effort, it will complement your dermatology practice, making it run more efficiently.

Patient Satisfaction With Teledermatology

Studies generally have shown very high patient satisfaction rates and shorter wait times with teledermatology vs in-person visits; for example, in a systematic review of 15 teledermatology studies including 7781 patients, more than 80% of participants reported high satisfaction with their telemedicine visit, with up to 92% reporting that they would choose to do a televisit again.⁴ In a retrospective analysis of 615 Zocdoc physicians, 65% of whom were dermatologists, mean wait times were 2.4 days for virtual appointments compared with 11.7 days for in-person appointments.⁵ Similarly, in a retrospective single-institution study, mean wait times for televisits were 14.3 days compared with 34.7 days for in-person referrals.⁶

Follow-Up Visits for Nail Disorders Via Teledermatology

Teledermatology may be particularly well suited for treating patients with nail disorders. In a prospective observational study, Onyeka et al⁷ accessed 813 images from 63 dermatology patients via teledermatology over a 6-month period to assess distance, focus, brightness, background, and image quality; of them, 83% were rated as high quality. Notably, images of nail disorders, skin growths, or pigmentation disorders were rated as having better image quality than images of inflammatory skin conditions (odds ratio [OR], 4.2-12.9 [$P < .005$]).⁷ In a retrospective study of 107 telemedicine visits for nail disorders during the COVID-19 pandemic, patients with longitudinal melanonychia were recommended for in-person visits for physical examination and dermoscopy, as were patients with suspected onychomycosis, who required nail plate

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sampling for diagnostic confirmation; however, approximately half of visits did not require in-person follow-up, including those patients with confirmed onychomycosis.⁸ Onychomycosis patients could be examined for clinical improvement and counseled on medication compliance via telemedicine. Other patients who did not require in-person follow-ups were those with traumatic nail disorders such as subungual hematoma and retronychia as well as those with body-focused repetitive behaviors, including habit-tic nail deformity, onychophagia, and onychotillomania.⁸

Patients undergoing nail biopsies to rule out malignancies or to diagnose inflammatory nail disorders also may be managed via telemedicine. Patients for whom nail biopsies are recommended often are anxious about the procedure, which may be due to portrayal of nail trauma in the media⁹ or lack of accurate information on nail biopsies online.¹⁰ Therefore, counseling via telemedicine about the details of the procedure in a patient-friendly way (eg, showing an animated video and narrating it¹¹) can allay anxiety without the inconvenience, cost, and time missed from work associated with traveling to an in-person visit. In addition, postoperative counseling ideally is performed via telemedicine because complications following nail procedures are uncommon. In a retrospective study of 502 patients who underwent a nail biopsy at a single academic center, only 14 developed surgical site infections within 8 days on average (range, 5–13 days), with a higher infection risk in patients with type 2 diabetes mellitus ($P < .0003$).¹²

Advantages and Limitations

There are many benefits to incorporating telemedicine into dermatology practices, including reduced overhead costs, convenience and time saved for patients, and flexibility and improved work-life balance for dermatologists. In addition, because the number of in-person visits seen generally is fixed due to space constraints and work-hour restrictions, delegating follow-up visits to telemedicine can free up in-person slots for new patients and those needing procedures. However, there also are some inherent limitations to telemedicine: technology access, vision or hearing difficulties or low digital health literacy, or language barriers. In the prospective observational study by Onyeka et al⁷ analyzing 813 teledermatology images, patients aged 65 to 74 years sent in more clinically useful images (OR, 7.9) and images that were more

often in focus (OR, 2.6) compared with patients older than 85 years.

Final Thoughts

Incorporation of telemedicine into dermatologic practice is a valuable tool for triaging patients with acute issues, improving patient care and health care access, making practices more efficient, and improving dermatologist flexibility and work-life balance. Further development of teledermatology to provide access to underserved populations prioritizing dermatologist reimbursement and progress on technologic innovations will make teledermatology even more useful in the coming years.

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