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Expansion of asynchronous teledermatology during the COVID-19 pandemic



To the Editor: Teledermatology has emerged as a crucial method of delivering care during the coronavirus disease 2019 pandemic. As in-person visits plummeted during the coordinated effort to limit the spread of coronavirus disease 2019,¹ teledermatology visits rapidly increased.² Although significant emphasis has been placed on synchronous telemedicine, such as video or telephone visits, we examine here the expansion of asynchronous telemedicine as a complementary strategy to provide dermatology care during the pandemic. Asynchronous teledermatology in the form of direct-care eVisits (a direct-care asynchronous questionnaire-based encounter via web portal) or provider-to-provider eConsults (provider-to-provider asynchronous consultation via order set in Epic) has demonstrated potential to increase access to dermatology care, with similar patient outcomes.^{3,4} By using store-and-forward technology, asynchronous teledermatology eliminates the need for provider-patient coavailability and provides a safe and convenient method to deliver dermatology care.

In response to the pandemic, all in-person dermatology visits except for urgent concerns were suspended at our institution between March 17, 2020, and May 25, 2020. Beyond converting to virtual visits, we accelerated the development and implementation of a pilot direct-care eVisit program. We selected established patients receiving medium- or long-term medications (eg, acne with isotretinoin or psoriasis with biologics) for eVisits. Each eVisit encounter involves patient completion of an online structured questionnaire and submission of photographs, followed by asynchronous dermatologist review and response. Our previously established dermatology eConsult program continued throughout this period. To assess the use of various modalities of dermatology care delivery during the pandemic, we tabulated all in-person visits, virtual visits, eVisits, and eConsults conducted across 12 dermatology clinics affiliated with Massachusetts General Hospital in April 2020. We compared these visit volumes across the same clinics in April 2019. Similar to the experiences of other dermatology departments,² in-person visits at our institution in April 2020 (n = 67) represented less than 1% of the volume in April 2019 (n = 7919) (Table 1). Meanwhile, 1564 virtual visits were conducted in April 2020 compared with 0 in April 2019. Asynchronous teledermatology visits also

Table 1. Volume of dermatology visits in April 2019 and April 2020

	April 2019	April 2020	April 2019 (% of all visits)	April 2020 (% of all visits)
In person	7919	67	98	3
Virtual visit	0	1564	0	77
eVisit	3	197	0	10
eConsult	163	196	2	10
Total	8085	2024	100	100

Virtual visit = synchronous telemedicine via telephone and/or video. eVisit = direct-care asynchronous questionnaire-based encounter via web portal. eConsult = provider-to-provider asynchronous consultation via order set in Epic.

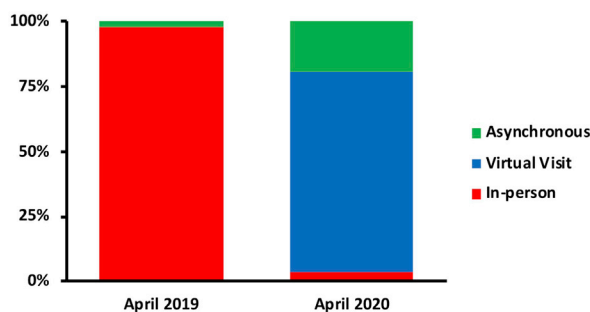


Fig 1. Proportion of dermatology visits by type in April 2019 and April 2020. Asynchronous visits are composed of eVisits and eConsults.

increased, driven primarily by eVisits. In April 2020, 197 eVisits were conducted compared with only 3 in April 2019, when the program was in a pre-pilot phase with only 1 dermatologist testing eVisits. Despite significant nationwide reductions in ambulatory visits,⁵ provider-to-provider dermatology eConsults increased by more than 20% from April 2019 to April 2020. The growth of eVisits and eConsults resulted in asynchronous teledermatology, accounting for 1 in 5 of all dermatology visits conducted at our institution in April 2020 (Fig 1).

Teledermatology was our lifeline for maintaining patient care while clinics were closed. Even as clinics reopen, we encourage dermatologists to consider maintaining teledermatology as part of their practice to improve patient access and staff productivity and remain at the forefront of the changing healthcare delivery landscape. More specifically, our experience shows that *asynchronous* teledermatology has the potential to facilitate routine dermatology care and thus open in-office availability for more urgent issues. Currently, limited reimbursement and

efficacy data for asynchronous teledermatology have prohibited its widespread adoption. To address this, we advocate more investigation of asynchronous teledermatology, including patient and provider satisfaction and patient outcomes.

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