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## Teledermatology in the era of COVID-19: Experience of an academic department of dermatology



*To the Editor:* We read with great interest the articles by Chen et al<sup>1</sup> and Price et al<sup>2</sup> outlining an approach to telemedicine implementation during the COVID-19 pandemic. However, the feasibility of these theoretical solutions has yet to be definitively and widely shown. Here, we report the successful transition of the ambulatory practice in the Department of Dermatology at the Yale School of Medicine from a completely office-based practice to a primarily teledermatology model over 3 weeks.

Our department comprises 4 main clinical sites in the greater New Haven, CT, area. We have 24 full-time clinical faculty serving approximately 1200 patients each week. In an effort to minimize the risk of contagion while preserving scarce resources, including personal protective equipment, we temporarily closed our offices on March 16, 2020.<sup>3,4</sup> Before this pandemic, our department had no teledermatology services. However, our medical record system (Epic, Verona, WI) had the capability of performing live interactive video visits through the patient platform, MyChart.

All physicians and staff were trained in telemedicine protocols and procedures using institutionally developed training videos, as well as departmentally developed algorithms (Fig 1, A) and call scripts, compliant with the American Academy of Dermatology Position Statement.<sup>4</sup>

Every patient with an existing appointment was called by using a call script and offered a live interactive telemedicine visit. Established patients who were unable or unwilling to perform a video visit were offered the option of a telephone visit. A medical dermatology advisory panel consisting of 5 faculty members was established to triage urgent and emergent cases first via teledermatology to determine the need for in-person evaluation. On a case-by-case basis, the panel requested input from 3 panel liaisons with expertise in surgical dermatology, pediatric dermatology, and dermatopathology.

Three of 4 sites successfully completed telemedicine visits within the first day (Fig 1, B). Within the first week, offices completed 225 teledermatology visits, and in-person visits were essentially eliminated. Telemedicine visits increased 191% in the second week, and nearly 500 visits were completed in the third week alone. Over 3 weeks, we

completed 1148 teledermatology visits, and current telemedicine volume is 41% of our pre-crisis volume. Importantly, there were fewer than 5 in-person visits.

Each site served patients of all ages with a variety of dermatologic conditions. We found that certain conditions (acne, psoriasis, eczema, rashes, rosacea, and lesions of concern) were particularly amenable to teledermatology, whereas other visit types (total body skin examinations) were not reliably accomplished through this modality. We determined that a hybrid of store-and-forward and live interactive approaches often enabled better evaluation of patient concerns, such as tele-triaging individual lesions. Patients scheduled for video visits were encouraged to upload high-resolution photos of affected areas before the visit into the MyChart/Epic platform.

We recognize several limitations for the broader community: (1) electronic medical record platform differences, (2) costs of adopting teledermatology, and (3) inability to conduct procedures. However, ambulatory practices can successfully leverage currently available technology and suggested guidelines to continue to provide care while preserving finite resources, maintaining social distance, and flattening the curve.

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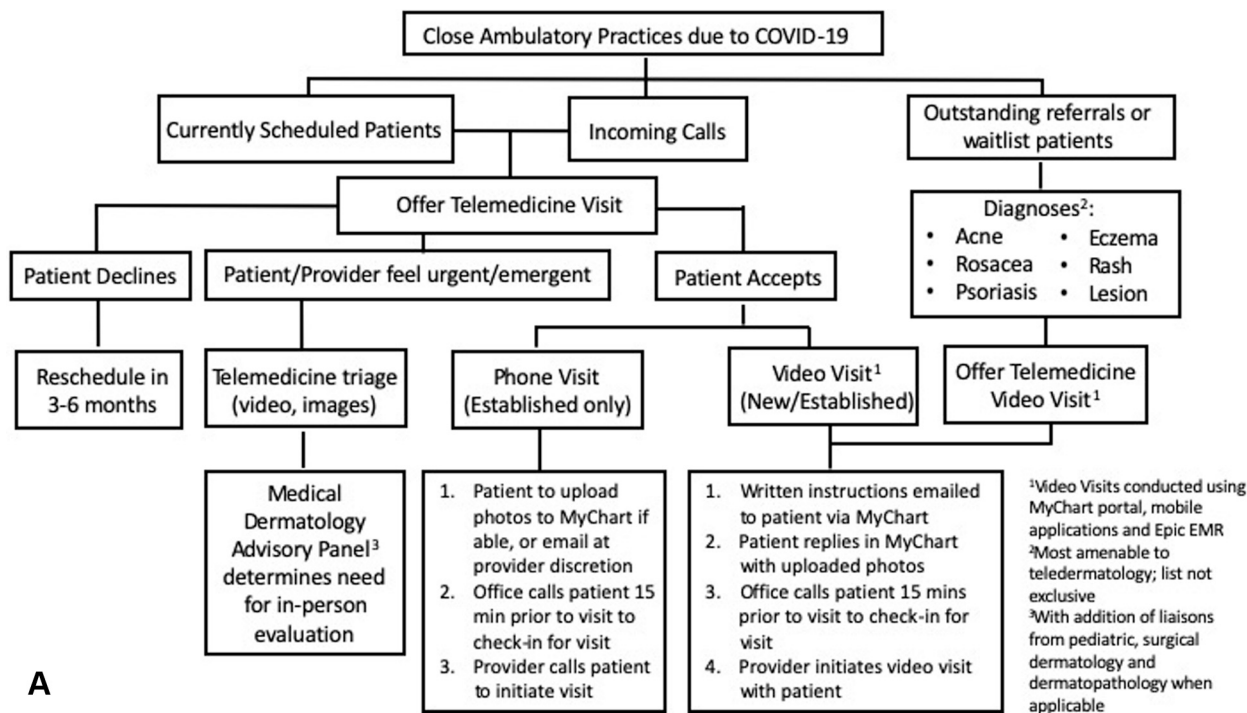
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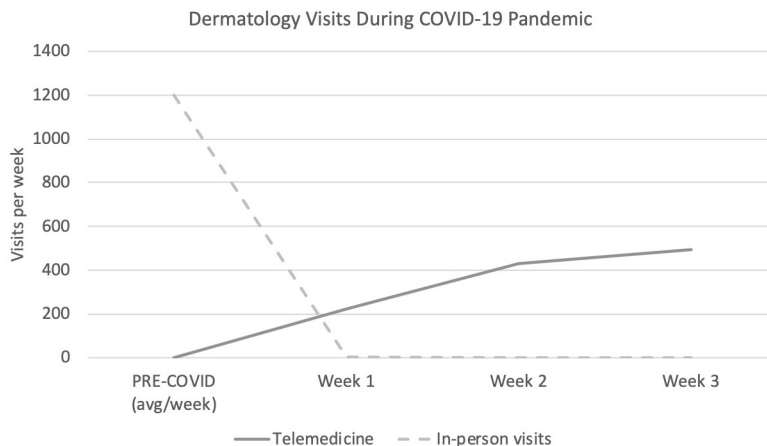
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A



B

**Fig 1. A,** Algorithm for screening all patients through teledermatology. **B,** Total weekly visits in the Department of Dermatology at the Yale School of Medicine. Because of the COVID-19 pandemic, in-person visits were dramatically reduced, and the implementation of telemedicine serves a growing number of patients.

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