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Plastics/Wound Healing

Patient and surgeon experiences with video visits in plastic surgery—toward a data-informed scheduling triage tool

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Introduction

The coronavirus disease 2019 (COVID-19) pandemic forced healthcare systems to implement telemedicine as standard practice across service lines, including surgical subspecialties. Telemedicine in surgery has been shown to improve access, reduce healthcare costs, save time, decrease travel burden, and improve quality of care.1–7 Most studies have focused on the postoperative period and indicate that video visits can be delivered safely, with similar patient outcomes and similar or superior patient and surgeon satisfaction to office visits.2,3,5–8 The limited studies that have evaluated telemedicine in the preoperative surgical context indicate virtual care can be effective for screening, discussing surgical options, and diagnosing patients.9–12
A systematic review of telemedicine in plastic surgery found benefits related to postoperative monitoring, access to high-level care in rural communities, and cost. Early evidence indicates that applications of telemedicine for triage decisions and postoperative monitoring have patient outcomes comparable to inpatient visits. Video visits can also facilitate effective and timely detection and management of postoperative complications. However, concerns remain regarding: surgeons’ ability to accurately assess wounds, such as burn depth; effective communication when video quality and connectivity are subpar; and patient security and privacy. Furthermore, outside of education videos, very little is known about video visits in preoperative plastic surgery settings. The lack of established best practices in plastic surgery telemedicine is another limitation.

We report patient and surgeon experiences with video visits during the California COVID-19 stay-at-home order which prompted both cancellation of non-essential surgeries and rapid, full-scale implementation of telemedicine for patient visits. Using a mixed-methods approach, surgeon and patient perceptions were analyzed along with scheduling data to understand the potential and limitations of preoperative and postoperative video visits in plastic surgery. Results were used to inform the development of a scheduling triage tool for appropriate use of video visits in plastic surgery. This quality improvement project was given a non-research determination by the Stanford University Institutional Review Board (#56131).

**Methods**

**Setting**

The study was conducted at Stanford Health Care (SHC), a quaternary academic medical center, and ValleyCare, an affiliate clinic within the Division of Plastic Surgery. Video visits were rolled-out system-wide in response to the San Francisco Bay Area and California COVID-19 stay-at-home order in March 2020 and continued through the spring and summer of 2020. This quality improvement project was given a non-research determination by the Stanford University Institutional Review Board (#56131).

The vast majority of patients are seen for a consultation visit, and a preoperative visit before surgery (2 presurgery visits). The initial evaluation visit includes discussion of possible surgery, and the preoperative visit is focused on preoperative evaluation. Primary care providers are not routinely involved, unless the patient has a complicated medical history that requires optimization through the perioperative period.

**Intervention**

Video visits were rolled-out system-wide in response to the San Francisco Bay Area and California COVID-19 stay-at-home order in March 2020 and continued through the spring and summer of 2020. Video visits were offered through Vidyo (Hackensack, NJ), a video conference software integrated into Epic (Verona, WI), the electronic health record system used at SHC. At the start of the pandemic, all providers were given video-visit-enabled HP Elitebooks (HP Inc. Palo Alto, CA) to enable them to complete video visits from home. Clinic computers were used to complete video visits from the office. In addition, surgeons and other clinic staff were offered a 30-minute training module through HealthStream (Nashville, TN).

Patients eligible for video visit consultations were sent prompts via Stanford’s MyHealth app, with instructions on how to sign in for the video visit. The MyHealth help (phone) line was also available if they encountered any technical issues.

**Qualitative interviews**

Four qualitatively trained interviewers (E.A.S.G., A.S.L., C.G.B.J., and M. Verano) conducted semi-structured phone interviews scheduled for 30 minutes between April and May 2020 with a convenience sample of 10 plastic surgeons conducting video visits and a stratified random sample of 11 preoperative and 9 postoperative patients. Patients who completed a video visit with a plastic surgeon between April 13, 2020, and April 24, 2020, were eligible. A total of 101 patients met this criterion as identified through managerial reporting tools. Patients were stratified by preoperative versus postoperative visit and randomized by simple random selection without replacement. Patients had participated in either one or the other (preoperative or postoperative video visits) but not both at the time this study was conducted. Interviewed providers represented a wide variety of sub-specialties, including breast reconstruction, hand surgery, oromaxillofacial surgery, and complicated and uncomplicated wounds and burns. Patient surgery types included breast reconstruction, hand and foot surgery, liposuction, lymphedema, oromaxillofacial, and wound/spine (see Table I).

The number of successful video visits completed on the Epic platform for each interviewed SHC surgeon before their semi-structured interview was determined, and mean and standard deviation are reported. Data were not available for the ValleyCare surgeons. At the time of the interviews, SHC surgeons had successfully completed 16.1 ± 8.9 (range: 5—29) video visits on the Epic platform.

Interventions with providers included: questions about satisfaction, acceptability, and comfort with video visits; opportunities and limitations of a video physical exam; potential sustainability/future of video visits in plastic surgery; best practices for video visits; perceptions of video impact on patient-provider connection; and cost and reimbursement for

| Table I: Characteristics of interviewed patients (n = 20) |
|-----------------------------|-----------|
| **Age**                     | n         |
| 20–30                       | 3         |
| 31–40                       | 5         |
| 41–50                       | 2         |
| 51–60                       | 7         |
| 61–70                       | 2         |
| 71–80                       | 0         |
| 81–90                       | 0         |
| >90                         | 1         |
| **Sex**                     |           |
| Male                        | 9         |
| Female                      | 11        |
| **Race/ethnicity**          |           |
| White                       | 11        |
| Hispanic                    | 3         |
| Asian                       | 2         |
| Other/unknown               | 4         |
| **Type of surgery consulted**|               |
| Breast reconstruction       | 5         |
| Foot surgery                | 1         |
| Hand surgery                | 7         |
| Liposuction                 | 1         |
| Lymphedema                  | 1         |
| Oral and maxillofacial surgery | 4   |
| Wound/spine                 | 1         |
| **Pre-/postoperative consultation** |       |
| Preoperative                | 11        |
| Postoperative               | 9         |
| **New versus follow-up patient visit** |        |
| New patient visit           | 4         |
| Follow-up patient visit     | 16        |
video visits. Patient interviews similarly focused on: patient experience and satisfaction with video visits; impacts of video on patient-provider relationships, trust, patient health, and wellbeing; and the future potential for video visits. Interview guides are available upon request.

A multi-phase analysis approach leveraged rapid analytic and constant comparison approaches to: (1) extract early themes using templated research notes (rapid); (2) compare findings across participants using a matrix analysis (rapid); and (3) determine consensus synthesis of findings with frequent qualitative group and larger team discussions (rapid and constant comparison). C.G.B.J., E.A.S.G., and T.S. condensed themes during weekly meetings. Finally, results were presented to the full team and refined iteratively with additional data examination for final consensus.

The main themes that related to barriers and facilitators were further discussed with clinical leaders to develop the proposed Triage Tool for Video Visits in Plastic Surgery.

Scheduling data

Scheduling data were used to assess video visit adoption. Data were extracted from January 5, 2020, through June 20, 2020, to capture volumes before and after the stay-at-home order (initiated week of March 15, 2020). The first week of the stay-at-home order was considered a transition week and excluded from analysis. The 13-week implementation period was thus March 22, 2020, through June 20, 2020. COVID-19, coronavirus disease 2019.

Results

Video visit utilization

Before the stay-at-home orders, video visits were not utilized in plastic surgery. Upon implementation of video visits, however, surgery providers adopted video visits rapidly, although video visit utilization was variable among providers and visit types. Of the 22 providers who conducted video visits, 14 (61%) integrated them into their practice within the first 2 weeks of the stay-at-home order, which increased to 21 (91%) by the seventh implementation week. Video visits were implemented rapidly, with 30–118 video visits/wk (Fig 1), and an average of three video visits/wk/provider. The proportion of visits completed via video varied among providers, however; 11 (50%) completed 20%–30% of visits via video whilst 6 (27%) seldom used video (0%–10%) (Fig 2).

During the implementation period, 24% of all patient visits were completed via video during the 13-week period by provider. The third measure is presented as the number of providers conducting 0 to <10%, 10 to <20%, 20 to <30%, 30 to <40%, 40 to <50%, and 50 to <60% of their visits via video. The number of successful video videos completed on the Epic platform for each interviewed SHC surgeon before their semi-structured interview was determined, and mean and standard deviation are reported. Data were not available for the ValleyCare surgeons. All quantitative data were processed and analyzed using SAS (version 9.4; SAS Institute, Inc., Cary, NC) and R (version 4.0.2; RStudio, Boston, MA).
Qualitative data: patient and surgeon interviews

Patient and surgeon interview themes centered on satisfaction, the virtual physical examination, and patient-surgeon relationship (see Table II for exemplar patient and surgeon quotes).

Satisfaction

Overall, patients were satisfied with video visits with their surgeon, however surgeons’ perceptions were mixed. Patients’ and surgeons’ satisfaction with video visits were related to reduced patient travel and increased access due to ease of scheduling and timing. Barriers to satisfaction revolved around technological inefficiencies, negative impacts of time pressure, and patient distractions.

Reduced patient travel and time were clear benefits of video visits reported by patients and surgeons. Many patients suggested video visits should be standard practice given that travel is not required for video. Some patients also noted not needing to take time off work as a benefit of video visits. Video visits were also easier and more convenient to schedule than in-person visits. Patients appreciated not having to wait in the clinic and were more tolerant of surgeons running late since they were home. In the unusual case that a surgeon was running late, patients suggested that notification of delays could further improve their experience. Surgeons positively reported that video visits were much quicker without the need for rooming. Surgeons also reported that increased access and fewer communication barriers ultimately improved continuity-of-care.
Table II
Exemplar quotes from patient and surgeon interviews organized by theme: satisfaction, the virtual physical examination, and the patient-surgeon relationship

| Themes                              | Exemplar patient quotes                                                                                                                                                                                                 | Exemplar surgeon quotes                                                                                                                                                                                                 |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Satisfaction                        | “[The post-op video visit] worked for me... To drive that far for... a ten-minute appointment is kind of ridiculous when we could do it through video conferencing.” (Pt4, 36-year-old female patient) | “...it’s really good to meet patients from far away. That travel is a large burden for them, to assess whether or not they’re potential candidates for surgery ... they’re not just disappointed that you told them there’s nothing you can do, they’re disappointed that they’re going to take a 12-hour trip for you to say in 10 minutes, “There’s nothing I can do for you.”” (MD9, plastic surgeon) |
| Travel                              |                                                                                                                                                                                                                       | “Now it’s like, ‘Oh you want to video visit again? Let me know, I can do it tomorrow, next week, whatever...’” (MD1, plastic surgeon)                                                                                   |
| Access - scheduling                 |                                                                                                                                                                                                                       | “...once the pandemic is over, I still think that the video visits is going to be my first go to mechanism. ... It’s faster, it’s efficient, we use less resources than clinic....” (MD1, plastic surgeon) |
| The virtual physical examination    |                                                                                                                                                                                                                       | “... patients really struggle to give you perspective on the body parts that you’re trying to look at during the physical exam...even though they have a good quality video, I’m trying to look at their hand and they’re showing me their sofa across the room.” (MD9, plastic surgeon) |
| Patient-assisted virtual physical examination |                                                                                                                                                                                                                  | “Plastic surgery is very much a kind of touch-and-feel type of surgery where you need to be able to understand tissue laxity, understand tissue quality, the mobility of the tissues...you can’t do that over video.” (MD8, plastic surgeon) |
| Visualization                       | “...he couldn’t view my wounds up close, he had to go by a photo. So, the detail of the video conference wasn’t as good as it would be in person.” (Pt1, 52-year-old male patient) |                                                                                                                                                                                                                       |
| Tactile exam                        | “Because of the intricate and also intimate nature of it (breast reconstruction) ... I want to be absolutely sure that every decision that I make is a very informed one, and without understanding my vascularity, my skin integrity, there’s just no possible way to determine that over video. A doctor has to be able to assess that and evaluate that firsthand.” (Pt6, 53-year-old female patient) |
| The patient-surgeon relationship    | “I would obviously probably go with someone who I could just meet face-to-face, have more time, see their body language, and have a better understanding of what type of surgeon they are, what type of person they are...you really don’t get that from a video exchange.” (Pt1, 52-year-old male patient) | “A lot of the issues that we’re dealing with in reconstructive surgery, it takes a lot of time to counsel patients. I think that there is probably a lack of that personal connection with the patient when you’re on the video visit, and so I think there are some challenges there.” (MD10, plastic surgeon) |
| Connection                          | “He explained everything in detail just the same as if I were there.” (Pt 8, 39-year old female patient)                                                                                                                                                                   |
| Trust                               | “...you just have a more personable experience...when I tell him something I don’t really know if he gets it. I can’t see the expression on his face, I can’t get a read on what he’s thinking ... if it was in person, I could see the expression on his face. I could gain more feedback depending on what that expression is...it’s a whole physical thing that you’ll never be able to reproduce over the phone.” (Pt11, 58-year-old male patient) |

Barriers to satisfaction included technical delays and directing physical examinations over video, which led to longer consultation times. Notably, 1 surgeon felt less equipped to manage the anxiety that accompanies cancer patients due to time constraints in a video setting. “… [it] take[s] a lot of time to counsel patients” (MD10, plastic surgeon). A minority of surgeons also found that distractions from pets and children during video visits sometimes hindered information exchange.

The virtual physical examination

Several patients and surgeons agreed that the in-person physical examination could not easily be replicated via video and that conducting an examination over video was challenging. On the positive side, many patients believed that the quality of care and medical advice they received were similar to in-person visits despite the limitations of a virtual format. Some

Access - scheduling

To enable cross-participant and cross-role (patient, provider) comparison, concepts of interest from the templated research notes were transferred into an

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patients who reported not needing an extensive physical examination were even able to successfully navigate a virtual physical examination that was conducted by the patient as directed by the surgeon (ie, a “Patient-Assisted Virtual Physical Exam” [20]).

Several patients who underwent a patient-assisted virtual physical examination were comfortable with their experience, even when the examination included private areas of their body. Surgeons, however, were less comfortable with patient self-examinations. One surgeon expressed that it would be awkward to perform sensitive examinations in front of the camera. Directing patients to perform physical examinations, particularly those that entailed performing maneuvers, were challenging and some surgeons felt that they could not trust patients to successfully identify complicating issues, such as tumors.

Not surprisingly, patients and surgeons alike expressed that the main limiting factor for quality of care was related to the physical examination. Virtual physical examinations were limited in 3 aspects: (1) visual observation, (2) tactile examination, and (3) comfort with following the surgeons’ directions to examine themselves and communicate those findings back to the surgeon. Patients and surgeons agreed that video quality, camera angle, perspective, and the device used (eg, phone versus tablet versus computer) affected the ability to successfully visualize a surgical site or body part during the physical examination. Poor video quality rendered inadequate visualization of surgical areas, limiting surgeons’ ability to acquire the necessary information through observation. Even when video quality was high, scars were “almost impossible” to see over video, in some situations due to patients’ lack of expertise with framing and focusing the video on body parts of surgical interest.

Surgeons suggested that patients receive more education on the technology to prepare them for video visits including ways to visualize certain body parts/surgical sites over video, and tips on video stabilization and correct lighting. Surgeons preferred that patients take the video call on a tablet or computer to ensure camera stability. By coaching patients to use better lightning or optimize angles, sometimes surgeons were able to better visualize the area, although this was still challenging. Surgeons also mentioned that standardized photos were required in many instances for documentation and insurance purposes; therefore, it was not ideal that patients take their own photos due to lighting issues. One surgeon suggested patient education including an outline to help position the body part/surgical site when taking a photo outside of the clinical setting.

The surgeon’s inability to gather tactile information (eg, assess skin quality, wounds, and lesions, and feel for masses) and view possible donor tissue sites—healthy areas of the body that might serve as donor tissue to be transplanted to target areas—were considered major limitations of video visits by both patients and surgeons. In addition, the inability to carry out a heart and lung examination and take specific patient measurements were also considered limiting factors that could create problems during surgery. Patients with a recent physical examination, testing, and/or imaging before the video visit, however, made preoperative video visits more acceptable to some surgeons.

Surgeons noted that hand surgeries were particularly challenging cases, where determining range of motion and assessing sensation and point tenderness over video was very difficult. Visualization problems were most challenging for patients with hand injuries and those who did not have nearby family/caregivers to assist with the video visit.

The patient–surgeon relationship

Video visits impacted the patient–surgeon relationship in 2 categories: (1) connection and (2) trust.

Patients reported establishing trusting relationships with consulting surgeons over video. In contrast, some surgeons noted having a harder time developing a personal connection with patients over video. Most patients reported that their interaction was the same as an in-person visit since surgeons took their time providing information and responding to their queries. Patients rarely noted that communication and establishing a relationship with their surgeon was harder over video; however, when it was mentioned, this was cited as a reason to prefer an in-person visit. Few surgeons discussed the patient–surgeon relationship, but those who did reported it challenging to develop a personal connection with patients over video: “…you do lose some of the nuances and subtleties of in-person interaction” (MD1, plastic surgeon).

Patients and surgeons exhibited divided and varying levels of comfort undergoing surgery without first having an in-person consultation. Where patients expressed comfort with a direct video-to-surgery trajectory, trust in the surgeon was paramount. Although patients had split views on whether they would allow a surgeon to perform surgery that room without an in-person consultation, patients uniformly trusted their surgeons, partly owing to the institution’s good reputation. Similarly, surgeons’ views on performing surgery without first seeing the patient in person were divided. The limiting factor was the inability to perform a complete preoperative physical examination oneself and to determine whether a patient was a good candidate for surgery. One surgeon reflected, “I would never do an operation based on a video call” (MD8, plastic surgeon).

Some surgeons, however, identified specific situations where they would proceed with an operation after a preoperative video visit without an in-person visit. For instance, referral of a patient by another surgeon would increase confidence in decision-making. Additionally, surgeons felt more comfortable not having an in-person preoperative visit if they had already operated on the patient (eg, for second-stage surgery) or had an established relationship. Surgeons comfortable with the preoperative virtual visits expressed that, before operating, they confirm that the patient is comfortable with the process and assure them that they would meet face-to-face on the day of surgery.

The proposed triage tool for video visits in plastic surgery

Patient and surgeon perceptions of future use and acceptability of video visits varied based on the goal of the visit and formed the initial basis for the proposed Triage Tool for Video Visits in Plastic Surgery (Fig 4). In the preoperative setting, interviewed patients and surgeons agreed that informational visits were ideal for video. Surgeons also saw use for telemedicine for initial screening of patients to potentially rule out surgery, but video visits were not considered suitable to determine what type of procedure was needed. Other preoperative scenarios preferred for video visits were non-emergency informational visits, patients traveling long distances, standard/simple or co-surgeon cases, and/or lower-risk patients.

Postoperative video visits were acceptable as a future state for most surgeons and generally acceptable to patients although not preferred. Patients expressed that postoperative, long-term, and follow-up care beyond the acute recovery stage were the ideal for video visits, but immediate postoperative appointments by video were less acceptable. Surgeons agreed that uncomplicated postoperative visits and long-term follow-up appointments were
appropriate future uses for video visits, unless procedures like suture or drain removal are necessary (Fig 4).

Patients indicated that video visits were not acceptable after an acute injury or complication, especially if a physical examination or additional testing was required. On the other hand, check-ups with patients in skilled nursing facilities, where transport could be expensive and challenging, would be ideal in the future for video format. Finally, surgeons expressed a need for clearer guidance on how to prioritize video visit utilization in their clinic to support their work and ensure that patient expectations and needs are met.

Discussion

This mixed-methods study is one of the first to examine plastic surgery patients’ and surgeons’ attitudes toward video visits and document adoption across plastic surgery providers and visit types during local COVID-19 stay-at-home orders. Video visits were rapidly adopted by providers, which allowed patients to receive the necessary care while minimizing the risk for in-person pathogen exposure. It is telling that despite universal utilization in this extreme situation, providers reported different levels of comfort with the incorporation of telemedicine visits into their practices, and different providers reported planning to incorporate telemedicine differently into their ongoing practice. Future plans ranged from never utilizing telemedicine going forward to planning to use telemedicine preferentially unless contraindicated.

Understanding the patient and surgeon experience and satisfaction with video visits expands existing literature and helps identify specific needs of plastic surgery video visits in preoperative and postoperative settings. Both patients and surgeons reported positive experiences but also limitations, including the virtual physical examination. Video visits were found to be satisfactory and acceptable for lower-risk situations, as has been documented in previous research. Indeed, surgeons and patients agreed that the best future use of video visits would be in lower-risk informational preoperative visits and long-term postoperative visits. Most appropriate for video telemedicine would be postoperative visits where the patients do not feel they are experiencing any problem, and where nothing specific like stitch removal, drain removal, or tissue expansion is needed. Conversely, in a typical practice model with 2 preoperative visits, most providers concur that conducting both by video would not be comfortable except when the patient is already a patient of the provider or when the patient is referred by a very trusted colleague.

The primary reported driver for patient acceptance was trust in their surgeon; patients relied on their surgeon to determine whether a video visit would be appropriate for them and to provide expert care via video. Patient trust in surgeons as a driver for satisfaction has been well-documented. Patients value their surgeon’s interpersonal skills as they develop trust, which was also observed in this study where trust was recognized as an important aspect of virtual care delivery. However, trust (or lack of trust) may be less binary and more nuanced; for example, a patient that trusts a surgeon due to the reputation of the institution could have that trust evaporate in the face of complications, especially if personal relationships had not been adequately established.

The virtual physical examination continued to be a challenge, as is the case in other specialties. However, our data identify opportunities to address limitations of video quality and the physical exam. In the evaluation clinic, patient education instructions were created to instruct patients on how to take high-quality photos. For example, patients having breast reduction surgery received a set of instructions regarding simple lighting and positioning to help direct taking high-quality photos of their breasts that could be uploaded to the electronic medical record. Locally successful, photos resulting from these directions were submitted to insurance companies and approved for their respective surgeries.

Beyond the logistics of photo documentation, 3 previously identified pillars of positive patient expectation-setting include patient education, patient acceptance, and patient-provider trust. A multi-dimensional approach addressing each of these pillars may be key to long-term video visit acceptability. Our evaluation suggests that video visits are accepted by patients and do not harm trust; efforts to support patient satisfaction may be enhanced with additional patient education.

From an operational perspective, our findings suggest a rationale for using video visits primarily for postoperative care; once a surgeon has established a trusting relationship during an in-person consultation, a postoperative video visit leverages that trust.
However, our study’s implementation rates suggest that surgery providers vary widely in their readiness to integrate video visits. Individual surgeons may vary in their surgical approach. As specialist practices, surgery clinics often have detailed documentation of individual order-of-operation preferences per surgeon. In the study clinic, after this evaluation, these preferences were expanded to include detailed documentation of surgeon preferences for video/in-person visits, based on ICD-10 diagnosis codes. We anticipate that this information will help scheduling and clinical flow and may be highly relevant in the current context of an academic institution—a setting that may be less prescriptive than managed-care organizations.

Surgeon preferences can also be mapped to the guidelines outlined in the scheduling triage tool for identifying video-appropriate patient candidates, according to visit type, case, surgeon’s role, and patient characteristics (Fig 4). Anecdotally, clinic schedulers struggled to identify appropriate candidates for telemedicine without the scheduling triage tool; the factors in the triage tool could be used to build decision tools, algorithms, or flags to assist schedulers in identifying patients appropriate for telemedicine. The factors in the triage tool can also serve as the foundation for development and standardization of an algorithm to ultimately support the development of automated procedures to support telemedicine/non-telemedicine triage. Indeed, algorithm systems and Information Technology approaches to scheduling have been successfully piloted to schedule surgeries in the operating room.

### Strengths and limitations

The COVID-19 stay-at-home order and its impact on care delivery provided a unique opportunity to rapidly evaluate the widespread use of telemedicine in plastic surgery but may limit the applicability of findings in a post—stay-at-home period. Our study included patients and providers from only 2 institutions; patient and surgeon perspective generalizability may be limited. While physician and patient perspectives on the impact of video visits on quality are important to understand, this study did not assess the impact of video visits on processes or outcomes of plastic surgery encounters. While encounter data with physician assistants and nurse practitioners were included in our quantitative analysis, resource constraints limited our ability to capture interviews from this population, thereby limiting our understanding of how this integral role shapes video visit dynamics. Finally, other long-term impacts of video visits, such as increased utilization of imaging, laboratory studies, and in-person visits, were not evaluated.

In conclusion, video visits were viewed as acceptable by patients and surgeons in plastic surgery in terms of quality of care but were limited by the inability to perform a physical examination. Pre—video-visit patient education may be a potential solution to partially overcome this limitation and improve the virtual physical examination. Additionally, our results informed development of a triage tool to determine the appropriateness of video visits for individual patients. Before widespread dissemination or permanent adoption, however, further study is needed to understand the appropriate use of video visits in the post-pandemic period as well as their impact on patient outcomes and healthcare utilization.

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