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Teledentistry— Keeping you connected with your patients



Introduction

At a time when the pandemic has driven us to seek alternatives to in-person contact, dental practitioners are challenged with providing oral healthcare to patients who have expressed growing fears of exposure. Add to that the World Health Organization's recommendation that [“routine non-essential oral healthcare – which usually includes oral health check-ups, dental cleanings and preventive care – be delayed until there has been sufficient reduction in COVID-19 transmission rates”](#) and it's no wonder doctors and patients alike are seeking virtual alternatives like teledentistry.

What is teledentistry?

Joining other remote computer-based “tele-“ categories, such as telework or telehealth, teledentistry is [“the remote facilitating of dental treatment, guidance and education via the use of information technology instead of direct face-to-face contact with patients.”](#) Teledentistry can be divided further into four subcategories, including [teleconsultation](#), [tediagnosis](#), [teletriage](#) and [telemonitoring](#). Each plays an important role for the dental practice in helping facilitate patient care.



Teleconsultation

Uses teleconferencing to address patients' non-invasive dental health concerns and issues or to discuss treatment plan options.



Tediagnosis

Uses technology to screen patients for caries or oral lesions via digital photos, or to screen orthodontic patients to determine if they are ready to initiate treatment.



Teletriage

Eliminates the need for the patient to travel to the dental practitioner and allows for the remote assessment of the patient's dental situation to determine the correct provider and optimal course of treatment.



Telemonitoring

Allows the practitioner to monitor the patient's treatment progress; this can significantly reduce the number of physical visits to the practice, especially in situations where more frequent visits are necessary like pre- and post-surgical treatment assessments.

Combined, the four subcategories of teledentistry help the practitioner maintain oversight over the patient's oral health during times when face-to-face visits are not possible or advised.

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Teledentistry Applications in Practice

Despite the sudden demand for teledentistry in response to the global health crisis, it isn't a new concept. Teledentistry was originally [introduced in 1994 by the U.S. government](#) as a method for monitoring the oral health of troops stationed around the world.

In the [initial United States Department of Defense \(DOD\) pilot program](#), dental providers captured intraoral photographs of patients at Fort McPherson in Georgia, the home base for the military personnel, and electronically transmitted them via a modem to a dental clinic at Fort Gordon, which was located 120 miles away. Fifteen patients were initially referred to Fort Gordon for surgery. One week post-surgery, each patient reported to the clinic at Fort McPherson for suture removal and intraoral images of the surgical site were captured and transferred to the dental clinic at Fort Gordon. The dental clinicians reviewed the color photographs and determined that only one of the 15 patients needed to return to the clinic for post-surgical care. The patients not only were happy that they did not need to make the long drive back to Fort Gordon, but also felt like they received better care than normal.

Flash forward 26 years and a lot has changed since the DOD's initial pilot. Thanks to technological advancements, the Internet has replaced the modem and smartphones, while webcams and tablets enhance communication and enable patients to capture images or share video of their dental situation with a remote practitioner.

Of course, it goes without saying that teledentistry has its limitations. It is not for every procedure or situation, but definitely has a place in filling a gap in providing oral healthcare and is truly meant to complement—not replace—face-to-face dental visits.

Even with that in mind, there are a few key areas where teledentistry excels as a powerful communication tool. Teledentistry:

- Provides a level of convenience and comfort
- Can be the ultimate emergency triage tool
- Is a great way to engage Millennials
- Helps serve the underserved

One thing to note: Teledentistry regulations vary by state, so be sure to check with local regulations. [Currently, 25 states “explicitly outline rules, regulations and reimbursement \(if any\) for the practice of teledentistry.”](#)

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Provide Patients with a Level of Convenience and Comfort

COVID-19 has made teledentistry a necessity due to the need to reduce in-person interactions or to eliminate them when possible. The great news is that the majority of patients have already embraced remote health interactions. [“Recent studies on the use of telehealth services have shown that 70 percent of patients are comfortable communicating with their healthcare providers via text, email or video in lieu of seeing them in person, and 76 percent of patients prioritize access to care over the needs for face-to-face interactions with their healthcare providers.”](#) In fact, [30% of patients already leverage technology](#) to check medical and diagnostic information via mobile devices or computers.

Teledentistry can also support productivity by reducing employee time away from work. In Canada alone, [over 40 million hours of time were lost due to patient’s dental treatment](#). Meanwhile, in the United States [“employed adults lose more than 164 million hours of work each year due to dental disease.”](#) Instead, teledentistry—with its anytime, anywhere convenience—offers patients a time-saving alternative.



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Employed adults in the US lose more than 164 million hours of work each year due to dental disease

But teledentistry doesn’t just benefit working adults; children have been found to be less anxious when consultations were provided from the comfort of home or a primary care setting versus formal appointments in the dental clinic.

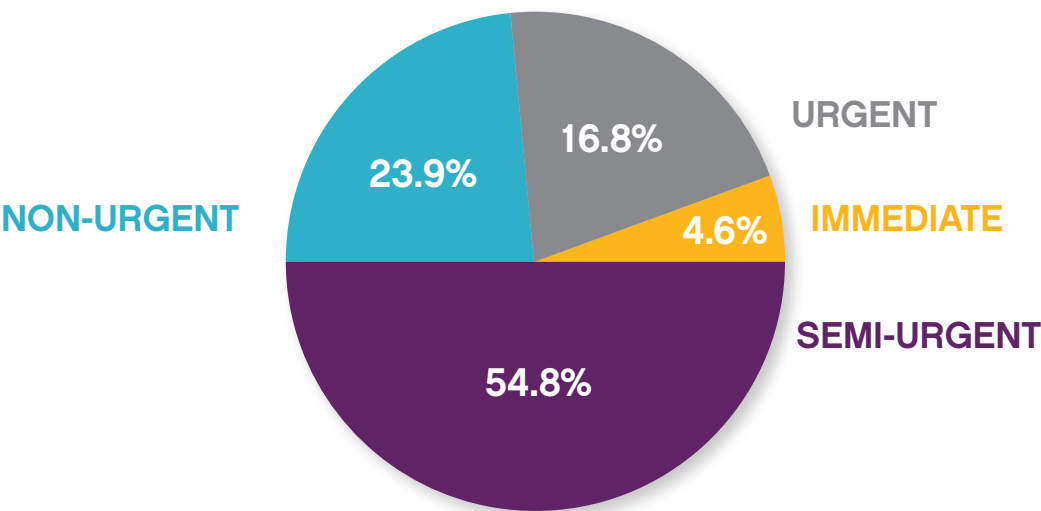
The Ultimate Emergency Triage Tool

Teledentistry may be the ultimate triage tool for dental emergencies, helping patients and practitioners alike determine the appropriate treatment location based on both urgency and level of severity. Most dental-related emergency department visits are not extremely urgent. Semi-urgent and non-urgent needs could have been appropriately teletriaged, saving time and resources and reducing cost. There are approximately 2 million emergency department visits annually in the US alone for nontraumatic dental problems, and [“most of these visits were for oral health needs that could have been addressed at a dental office, including care delivered through teledentistry.”](#) Not to mention, non-urgent emergency department dental visits are costly, and diverting patients to a more appropriate treatment in a dental office [could save approximately \\$1.7 billion annually](#).

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When [compared to non-dental emergency department visits](#), a significantly smaller percentage were considered to be immediate or urgent, with the majority of visits being considered as semi-urgent or non-urgent, as follows:

Dental emergency department visits by level of urgency



[Approximately 70% of emergency department dental visits occur outside of normal business hours](#) when dental practices are closed; teledentistry could potentially help reduce these visits by appropriately triaging the patient. In order to address semi-urgent dental visits occurring outside of normal business hours, more dentists would have to agree to work odd shifts since [“to attend to such visits is essential for any effort to shift dental care utilization from the emergency department to a dental office.”](#)

Teledentistry could serve as a method for determining whether an emergency same-day visit is warranted or whether the patient could wait for an appointment during normal working hours. Offering teledentistry as an option for emergency situations can help the practitioner assess the level of severity of the emergency while maintaining oversight of the patient’s oral healthcare and any referrals to specialist that may be needed to assist in the patient’s treatment.

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A Great Way to Connect with Millennials

Millennials are the [first generation raised with technology at their fingertips](#), and as a result they are extremely comfortable with video chat, texting, email exchange, etc. They are continuously online and are accustomed to being constantly connected. In fact, [“51% of millennials are mostly or almost always online and connected,”](#) and they have grown to expect online options to address their health needs, making them prime candidates for teledentistry solutions.



Removes Barriers to Dental Access

More than [56 million Americans live in areas with a shortage of dental professionals](#). That can include people living in rural areas, where [43% lack access to healthcare](#); patients with physical limitations; those living in extended care and nursing homes; and even prisons. Teledentistry can help address barriers to access, including geographic location, transportation and mobility limitations and shortages of providers.



Teledentistry can eliminate the need for a person living in a rural area to drive long distances for something that is ultimately a non-emergency. Triageing the appointment via teledentistry can help the dental professional assess the situation and ensure the patient sees the right practitioner to treat the issue. It also can prevent a scenario where a patient has an emergency outside of business hours and drives a long distance to the practice, only to be asked to return during normal business hours for treatment.

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While the patient still needs to be seen in person for an examination and acquisition of diagnostic records, the follow-up consultation appointment where records and the treatment plan are reviewed could be conducted via video-chat, which can save the patient a significant amount of time. It can also save the practice time and money, as teledentistry appointments eliminate the costs of personal protective equipment (PPE) and the time needed to sanitize the room.

Summary

The current global health crisis has driven all healthcare professionals to try new tools and resources to care for their patients. Fortunately, oral healthcare practitioners have rediscovered teledentistry, the convenient remote way to consult, diagnose, triage and monitor patients. Even before COVID-19, there were hints that dentistry could head in this new virtual direction. There's the convenience and time savings for patients, plus the reduction of trips to the emergency room for dental issues. A new generation of technology users expects speed and convenience at their fingertips and oral healthcare on their schedules. However, the long-acknowledged barrier to healthcare of all kinds in rural areas—or for those with mobility issues or pre-existing conditions—is still waiting for a resolution...

While teledentistry does not replace in-person visits, there's no doubt it has been extremely useful during times of quarantine and shutdowns. But why stop there? When practices have fully reopened and people can move confidently and safely through their communities, teledentistry can still fill treatment gaps and complement face-to-face dentistry. Like many COVID-19 pivots, teledentistry is here to stay.