

SAFETY FIRST: THE POTENTIAL PITFALLS OF TELEHEALTH

In a burgeoning number of publications, including the Perspective by Chuo et al,¹ researchers have described the benefits of using “telecommunication technologies to support long distance clinical healthcare delivery,” commonly referred to as telehealth or telemedicine.² The potential advantages of remote health care include benefits to families with limited access to physicians, cost-effective health care delivery, equity, convenience and flexibility, provided that Internet service and electronic technologies are available.^{1,3} Although regulatory standards have been relaxed during the coronavirus disease 2019 (COVID-19) pandemic to facilitate virtual visits, the same standard of care applies to telehealth visits as in-person consultations. Chuo et al¹ appropriately highlighted issues about quality, cost-effectiveness, and outcomes of a telehealth program that require ongoing evaluation.

Nevertheless, we perceived a potential safety risk for sick children during the COVID-19 pandemic because of limited access to some primary care physicians for in-person consultations leading to delays in definitive care. In one instance, an 8-year-old afebrile girl complained of unilateral ankle pain without antecedent trauma. Despite three telehealth evaluations by her pediatrician for disabling ankle pain and swelling, the parents were instructed to provide supportive care for a presumed sprain. After 8 days, she presented with spiking fevers to the emergency department of an academic children’s hospital where she was diagnosed with methicillin-susceptible *Staphylococcus aureus* bacteremia and tibial osteomyelitis,

suppurative arthritis of the ankle, and an extensive soft tissue abscess that required serial debridements and a prolonged course of intravenous antibiotics. Another example of delayed care was when a 5-month-old previously healthy boy presented to a community hospital where he was diagnosed with mild unilateral conjunctivitis. Despite treatment with a topical antibacterial medication, the eye infection progressed. The mother received telephonic advice from the pediatrician’s office but no in-person visit because of COVID-19. Six days after the onset of the infection, the child presented to the emergency department of an academic children’s hospital with infraorbital swelling and crusted hemorrhagic lesions, as well as severe perinasal impetigo caused by methicillin-susceptible *S aureus* and herpes simplex virus I. In both cases, earlier physical examination by a physician could have potentially prevented progression and complication of their diseases.

As of February 7, 2021, a systematic search of Medline using thesaurus search terms “(telehealth OR telemedicine) AND (pediatric OR child)” revealed 1264 articles covering both primary care and subspecialties that were published after January 1, 2020, when COVID-19 became increasingly prevalent. The search was limited with additional terms “AND (safety OR complication).” Of the eligible 101 articles, in only two Israeli studies did researchers directly address patient safety.^{4,5} Whereas authors of one study found that physicians who conducted telehealth made appropriate diagnoses and safe management plans,⁴ the authors of the other study found higher rates of complicated appendicitis related to delayed diagnoses during the COVID-19 pandemic compared with previous years.⁵

Despite the potential benefits of telehealth, it is imperative that these programs be rigorously audited to assess safety, quality of care, health outcomes, and parental satisfaction. Children with acute or progressive symptoms need timely access to in-person clinical evaluations, regardless of the ongoing COVID-19 pandemic.

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