

# Telemedicine during Covid-19 pandemic: Advantage or critical issue?

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## Abstract

Telemedicine offers a support to traditional medicine, delivering clinical services when distance is a critical factor. Although this tool does not replace a medical examination, during Covid-19 pandemic, it reduces the spread of infection and avoids the need for a patient's visit. It is useful in the management of chronic disorders or for patients undergoing palliative treatment. The University Hospital of Palermo has applied this in cases of chronic illness caring for patients who cannot stop their treatment, such as Department of Onco-Haematology, Internal Medicine, Dermatology, etc. The Department of Legal Medicine of Palermo, in particular, is also using telemedicine to manage medico-legal sudden natural death investigations and dealing with the Public Prosecutor's office of Palermo. Even after the Covid-19 emergency, telemedicine will be essential to streamline outpatient visits, while at the same time limiting costs, with significant benefits for the Italian National Public Health Service budget. In conclusion, telemedicine can offer a valuable support to the doctor's activity by streamlining and facilitating their work. In this sense, the Covid-19 pandemic represents a positive input for the acceleration and enhancement of these tools.

## Keywords

Telemedicine, pandemic, Covid-19, chronic illness management, challenges in healthcare

Telemedicine delivers health-related services and medical care through the use of technology and informatics especially as a means of reducing the risk of cross-contamination caused by close contact. Although this offers support to traditional medicine, the medical examination and developing a close relationship between doctor and patient continue to play a key role in the delivery of healthcare. If traditional medicine is not applicable, as in the Covid-19 pandemic, telemedicine becomes an important tool.<sup>1</sup>

Telehealth reduces the spread of infection while allowing the patient to continue his diagnostic-therapeutic process.

Medical examination remains the cornerstone of practice, but telemedicine decreases the number of patient attendances as consultations take place on the telephone, video calls, exchanges of photographic documentation, mobile phone messages, e-mail or other support applications for computers or mobile phones.

## What are the advantages and limits of using telemedicine?

We have found it a useful tool especially in the management of chronic disorders, like diabetes, high blood

pressure and some long-term lung diseases. After making a diagnosis and setting a therapy, any changes of the treatment regimen will be easy to apply.<sup>2</sup>

Patients receiving palliative treatment can also benefit because any changes in the treatment regimen are easily carried out.

The University Hospital of Palermo is using telemedicine in departments which help treat patients with chronic illness who cannot stop their treatment even if they cannot attend the hospital, which include the Department of Onco-Haematology, Internal Medicine and Dermatology.

The Department of Legal Medicine is also using telemedicine to manage medico-legal sudden natural death investigations in its dealings with the Public Prosecutor's office of Palermo.

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If a diagnosis has not yet been made, telemedicine can still prove useful in medical specialities where external signs are important in identifying the problem, such as dermatology. However, this may be unsatisfactory if there are low-quality images, and image sharing through communication media can significantly reduce the picture quality.<sup>3</sup>

Finally, telemedicine may significantly reduce general practitioner visits and a dedicated platform would allow patients to have e-prescription for drugs or specialist examination; it could also be used for rapid communication.

Even after the Covid-19 emergency, telemedicine will be needed to streamline outpatient visits, reduce overcrowding and the costs of healthcare which would make them more affordable and thus more sustainable, with significant benefits for the Italian National Public Health Service budget.

Video communications would partially compensate for the lack of actual visits and improve medical oversight and clinical judgment.<sup>4,5</sup> Yet, at the same time, telemedicine has its limits and should remain only a support tool for traditional medicine, because it does not allow the same closeness and for a doctor to identify details that only a physical medical examination can really reveal. A remote visit by video call or a telephone consultation may not be sufficient to formulate a correct diagnosis or set up the right and best therapeutic regimen; it may mislead the doctor, increasing the possibility of diagnostic-therapeutic errors and malpractice claims.

So while telemedicine can offer valuable support to the doctor's practice by streamlining and facilitating their work and speeding up and enabling easier patient access, it is not an end in itself. The Covid-19 pandemic has accelerated its input and we await the development of online platforms which will be best designed to

support traditional medical practice and which should take account of different medical specialists' individual experiences.

The Italian Ministry of Health needs to promote the greater use of telemedicine and other digital health technologies to deliver its clinical services, and if it is properly used, it will be a boon for the Italian National Public Health Service.

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