In the last few years, we have witnessed an important development in the medical field of both Mobile Health, such as the use of mobile communication devices, and other telemedicine tools in general, in order to support the surveillance of diseases from the moment of the first diagnosis to the therapeutic follow-up. Long before COVID-19, some authors had analyzed various possible evidence-based scenarios and had indicated how the use of telemedicine could prove to be extremely useful in epidemic situations, especially for the management of chronic patients, such as immune-allergic ones, who are notoriously in greater need of regular follow-up; however, as expected, the advent of the COVID-19 pandemic has amplified the differences between various countries, from the point of view of the propensity to use technological solutions in the health sector. The hope is that one positive outcome of the ongoing pandemic is that it will lead to an acceleration, by all the stakeholders involved, of the process of modernization of health care.

**KEYWORDS**
apps, contact tracing, COVID-19, immune-allergic patients, telemedicine
and prefer digital medical-patient communication whenever possible. Recently, the infection caused by SARS-CoV-2, recognized as a pandemic by WHO on March 11, 2020, has had a disruptive effect in that sense, first in Asia and then in the Western world. A great deal of the infection has been correlated to intra-hospital transmission, particularly in China; this underlined the need to limit patients’ movements to the bare minimum, to reduce at the same time both the possibility that, if infected, they could infect other people (doctors and other patients), and their likelihood of getting infected in a highly at-risk setting like a hospital. In this context, therefore, telemedicine (“arriving” at the patient’s home without putting them at risk) could be really useful, allowing for the treatment of patients with mild-moderate symptoms directly at home; at the same time, it would allow for the triage of suspected COVID-19 patients, for example, by video call, in order to carry out not only a medical history but also a direct observation of the patient, including for any early signs of respiratory distress.

However, as expected, the advent of the COVID-19 pandemic has amplified the differences between various countries, from the point of view of the propensity to use technological solutions in the health sector. In this regard, a recent study has shown that in the United States from March 2 to April 14, 2020, telemedicine visits increased by 135% (from 369.1 per day to 866.8 per day) in emergency units and as much as 4345% (from 94.7 per day to 4209.3 per day) in non-emergency outpatient settings, with a higher use by patients aged 20 to 44 years (especially for urgent care); of all virtual visits, 56.2% of urgent and 17.6% of non-urgent visits were COVID-19-related. In this case, therefore, the current health situation has caused a sudden expansion in the use of telemedicine, in a country already of high technological potential in the medical field. However in other nations, such as Italy, the scarcity and heterogeneity of the available equipment, the lack of interconnection between the various telemedicine systems and the electronic medical record of the national health system, the absence of economic support, and not least the presence of strict privacy rules have hindered the implementation of effective digital solutions, especially for the management of chronic patients, such as immune-allergic ones, who are notoriously in greater need of regular follow-up.

In this regard, some American and Canadian authors have indicated criteria for the reorganization of Allergy and Immunology outpatient services during a pandemic: most visits should be postponed/delayed or managed through virtual contacts/consultations, with the exception of patients with primary immunodeficiency or uncontrolled asthma, or patients undergoing AIT, by developing and integrating telemedicine tools when possible, in order to reserve the few available places for the traditional outpatient visit to the most serious patients, according to the clinician’s judgment. In the same way, the pediatric section of EAACI has made some recommendations for the management of childhood allergies and immunodeficiencies in this particular situation: not interrupting continuous therapies for optimal control of chronic conditions such as severe asthma and immunodeficiencies (considered risk factors for complications from COVID-19) and prefer digital medical-patient communication whenever possible.

Key message
The use of telemedicine proves to be extremely useful in epidemic situations, especially for the management of chronic patients, such as immune-allergic ones.

One final fascinating aspect of telemedicine in times of COVID-19 concerns the development of smartphone applications capable of tracing the contacts of the user with potential confirmed/suspected cases of recent infection of SARS-CoV-2, suitable for monitoring the trend of the epidemic and for the consequent possibility of timely response, with particular regard to the aspects of protection of sensitive data and usability by the very same user; such projects are being carried out in various countries, including Italy (“Immuni” app).

Ultimately, the hope is that one positive outcome of the ongoing pandemic is that it will lead to an acceleration, by all the stakeholders involved, of the process of modernization of health care, which is already underway but still curbed, both because of the reticence of a part of the medical world and the need to combine the effectiveness of these new tools with compliance with the current regulatory frameworks (in particular those regarding privacy; in this regard NTD Committee SIAIIP is conducting a survey among Italian doctors); in this particular health context, the possibility of using an adequate but at the same time safe medical service in terms of avoiding contagion, as telemedicine could be, could also allow to overcome the patient’s remaining level of distrust, therefore contributing to definitively perfecting and implementing such a method, not only today but also in a post-pandemic future.

CONFLICT OF INTEREST
The authors have no conflict of interest to declare.
AUTHOR CONTRIBUTION

Stefano Pattini: Conceptualization (equal); Investigation (supporting); Writing-original draft (lead); Writing-review & editing (lead).

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Salvatore Tripodi: Conceptualization (equal); Investigation (lead); Supervision (lead); Writing-review & editing (supporting).

PEER REVIEW

The peer review history for this article is available at https://publons.com/publon/10.1111/pai.13346.

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How to cite this article: Pattini S, Malizia V, Travaglini A, et al. Telemedicine for allergic patients during COVID-19. Pediatr Allergy Immunol. 2020;31(Suppl. 26):102–104. https://doi.org/10.1111/pai.13346