

TELEMEDICINE, ALLERGY AND THE COVID-19 PANDEMIC

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ABSTRACT

The global COVID-19 pandemic has changed the world and healthcare practice. Telemedicine is important in reaching underserved and rural populations. But it has also become important in limiting the exposure of patients and healthcare professionals to infection, while at the same time still providing access to healthcare consultations for patients with acute and chronic conditions.

Keywords: telemedicine, allergy, COVID-19

INTRODUCTION

COVID-19 has changed clinical practice considerably. Patients are reluctant to present to healthcare facilities for fear of contracting coronavirus infection; doctors and other healthcare workers are nervous that asymptomatic carriers of the coronavirus may infect them and therefore prefer to avoid unnecessary contact with patients. Many doctors closed their private practices during the initial strict lockdown, whereas others were available for virtual consultations. Similarly, state hospitals de-escalated outpatient clinics to free up staff and services for the expected deluge of COVID-19 patients. At our allergy clinic we conducted telephonic consultations. Face-to-face consultations were available to new patients and to those who requested them. Because children were confined to their homes and therefore not exposed to viral infections at school, they were generally well and not disadvantaged by these developments.

ALLERGY PRACTICE DURING THE COVID-19 PANDEMIC

A study published from Turkey surveyed 183 allergists' practice during the COVID-19 pandemic.¹ Telemedicine was used by the allergists to manage asthma (73%), chronic urticaria/angioedema (59%), allergic rhinitis (AR) (53%), atopic dermatitis (51%), food allergy (48%), drug hypersensitivity (45%), venom allergy (30%), hereditary angioedema (28%) and anaphylaxis (22%). Of the participants, 21% indicated that they continued subcutaneous immunotherapy as usual during the pandemic. Most of the allergists deferred allergy testing and oral food challenges. The usual medication for asthma and AR was continued, but systemic corticosteroids and biological therapy were discontinued by 34% and 25% of the respondents, respectively. The majority of the allergists preferred metered-dose inhalers with spacers to nebulisers, because of the potential aerosolisation of the coronavirus, with the risk of transmission of infection. Almost all of the participants continued subcutaneous immunoglobulin replacement therapy in patients with primary immunodeficiencies.

The European Academy of Allergy and Clinical Immunology

(EAACI) surveyed allergists to determine the tolerability of allergen immunotherapy (AIT) during the pandemic and whether any alterations occurred in the AIT schedule.² This included sublingual AIT (SLIT), subcutaneous AIT (SCIT) for inhalant allergies and venom AIT. Of those surveyed, 417 respondents provided AIT to their patients. Of these, 60% had not initiated SCIT (40% venom AIT, 35% SLIT), even in asymptomatic patients; 75% of the respondents continued the AIT for those patients in the maintenance phase. Sixteen physicians performed AIT despite patients having early symptoms of COVID-19 and/or a positive test result for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).²

TELEMEDICINE – SOUTH AFRICAN GUIDELINES

Telemedicine is

the practice of medicine using electronic communications, information technology or other electronic means between a healthcare practitioner in one location and a healthcare practitioner in another location for the purpose of facilitating, improving and enhancing clinical, educational and scientific healthcare and research.³

In its original conception, telemedicine was designed to provide remote healthcare services to underserved and rural areas. The Health Professions Council of South Africa (HPCSA) guideline requires that

All Telemedicine services should involve a healthcare provider where there is an actual face-to-face consultation and physical examination of the patient in a clinical setting. The consulting practitioner will communicate the information to the servicing practitioner, who will then provide the necessary assistance.³

The guidelines further define the consulting and servicing healthcare practitioners as follows:

- The 'consulting healthcare practitioner' refers to the practitioner who conducts a 'face-to-face' interview or examination with the patient or refers the patient's information

to a remote location for further advice or intervention.

- The 'servicing healthcare practitioner' refers to the practitioner who offers advice or intervention or patient information from a remote location.³

On Thursday, 26 March 2020, just as South Africa was about to enter Lockdown Level 5, the HPCSA released guidelines, which stated:

The HPCSA regards telemedicine models in which healthcare practitioners routinely consult with patients virtually, that is, directly without the consulting and responsible practitioner's physical presence as being in contravention of its ethical guidelines.⁴

The media release emphasised:

The HPCSA does not regard Telemedicine as a replacement for normal 'face-to-face' healthcare but an add-on meant to enhance access to healthcare for South Africans who are disadvantaged and outside of the health services reach, such as specialists.

Furthermore:

Routine and standard healthcare procedures, especially face-to-face consultation, physical examination and taking history from patients must be adhered to. Treatment, including issuing a prescription based solely on questionnaires or similar non-personal methods does not constitute an acceptable standard of care.⁴

The media release, which emphasised that doctors may consult remotely only with patients with whom they have a pre-existing relationship, caused uproar and an outcry among the medical profession, and the South African Medical Association (SAMA) called the contents of the media release 'wrong and dangerous'.⁵ Some of the reasons quoted include the risk to doctors of face-to-face consultations, the risk to patients who have to travel to see their doctor and sit in waiting rooms with sick patients, and the potential perpetuation of inequalities within the healthcare system by denying patients access to remote consultations.

The HPCSA released two further statements, on 30 March and 3 April 2020, in which they amended their guidelines applicable during the COVID-19 pandemic.^{6,7} This was to adhere to the National State of Disaster proclamation, in which self-isolation and social distancing were emphasised by both the president and the Minister of Health. In the release of 30 March, the following was stated:

- 'Telemedicine' is hereby replaced with 'Telehealth' which includes among other things, Telemedicine, Telepsychology, Telepsychiatry, Telerehabilitation, etc, and involves remote consultation with patients using telephonic or virtual platforms of consultation.
- 'Telehealth' is permissible only in circumstances where there is an already established practitioner–patient relationship, except where Telepsychology and/or Telepsychiatry is involved, in which case Telehealth is permissible even without an established practitioner–patient relationship.
- Where practitioners are in doubt whether a Telehealth consultation will be in the best interest of the patient, they are encouraged to advise patients to present themselves for a face-to-face consultation to seek assistance at a healthcare facility closest to them.

This guideline is only applicable during the COVID-19 pandemic. The HPCSA shall, soon after the end of the pandemic, inform practitioners of when this guidance will cease to apply.⁶

In the notice dated 3 April 2020, the second clause above was amended to read:

Telehealth should preferably be practised in circumstances where there is an already established practitioner–patient relationship. Where such a relationship does not exist, practitioners may still consult using Telehealth provided that such consultations are done in the best clinical interest of patients.⁷

The Medical Protection Society (MPS) published guidelines for its members in which it is emphasised that a remote consultation is permissible, but that the health professional must be certain that it is in the patient's best interests and that they can adequately assess the patient via this means. The patient must be informed why the telehealth route is being used and the information must be documented in the clinical records. Ideally, the patient should be known to the practitioner. If the practitioner is uncertain, the patient should be referred to an appropriate facility for a face-to-face consultation.⁸

TELEMEDICINE AND ETHICS

The World Health Organisation (WHO) uses the umbrella term eHealth to define 'the use of information and communication technologies (ICT) for health'.⁹ Telemedicine, a sub-set of eHealth, is 'the practice and delivery of healthcare over a distance using ICT'.^{10,11}

A number of potential ethical issues could arise from the implementation of telemedicine. According to Townsend et al, any ethical framework for telemedicine needs to address 'three distinct and relevant ethical issues'.¹¹ These issues are:

- the fiduciary nature of healthcare and the changing nature of the doctor–patient relationship;
- the privacy, confidentiality and sensitivity of health data; and
- the need for informed consent for various aspects of telemedicine.^{11,12}

THE DOCTOR–PATIENT RELATIONSHIP

In-person clinical encounters are the basis of the doctor–patient relationship. Early in their training, medical students are taught the value of a detailed history and thorough clinical examination. The most valuable clinical teaching is done at the patient's bedside. It is also for this reason that the value of telemedicine is seen as providing medical care in remote and rural areas and that most guidelines require a pre-existing relationship between the doctor and the patient. The traditional doctor–patient relationship is changing, although the doctor's primary duty of care to the patient remains unaffected. One way of addressing the primacy of the doctor–patient relationship in the context of eHealth is to develop a video-conference 'face-to-face' consultation.¹¹ Photographs taken by the patient of their skin lesions or wounds using their cellular telephones could be substitutes for actual physical examination. It is essential for the doctor to give clear instructions to the patient regarding their responsibilities and those of other members of the healthcare team in the patient's ongoing care.¹¹

PRIVACY AND CONFIDENTIALITY

Patient privacy and the protection of data are of concern when using technology-based platforms. Patients may be unaware of who will be able to access their personal medical information. According to Townsend et al,

the defining feature of eHealth is the significant role played by data. A necessary consequence is the creation of medical records, digital images, video and audio files and copious data, the subject of which is often personal and highly sensitive. By its nature, telemedicine presupposes that personal health data freely navigates, and is shared, across various digital networks within a largely borderless setting; this is integral to the success of eHealth delivery systems.¹¹

The meaning of privacy and confidentiality may differ between cultures and societies – this is seen especially in the context of social media. These issues have to be considered by a regulatory framework for eHealth; this framework will have to take legislation such as the Protection of Personal Information Act 4 of 2013 (POPIA) into account.¹¹

INFORMED CONSENT

Informed consent is regarded as one of the tenets of healthcare in the westernised setting. It reinforces the ethical principle of respect for autonomy, and the HPCSA telemedicine guidelines require it to be obtained in writing. It is, however, rare for health professionals to obtain informed consent for in-person clinical encounters.¹³ What degree of understanding is required for valid informed consent to be given for a telemedicine consultation? And how will it work in a multilingual society such as South Africa? Despite these concerns, any framework for telemedicine will have to take into account those requirements for consent that are reasonable and meet basic standards.

TELEMEDICINE DURING THE COVID-19 PANDEMIC

The use of ICT for healthcare consultations during the COVID-19 pandemic aimed to continue to provide a service to patients while minimising the risk and harm to patients and healthcare professionals. The HPCSA Telemedicine guidelines are

extremely restrictive and went through three iterations during the early days of the pandemic.^{4,6,7} However, all three of the guidelines emphasise that they apply only during the pandemic. They also do not state clearly the HPCSA's view on face-to-face consultations, physical examinations and virtual prescribing. Specifically, the 3 April 2020 HPCSA media release states that 'telehealth should *preferably* be practised where a prior patient–physician relationship exists'.^{7,14} This could possibly negate the value of telemedicine.

During the COVID-19 pandemic, contagious patients and/or healthcare professionals pose a risk to others in face-to-face consultations. Numerous healthcare professionals became ill and many succumbed to COVID-19; many of these infections were acquired in the course of clinical practice. Telemedicine plays a vital role in protecting the profession and the public from harm; Townsend argues from a consequentialist viewpoint that its use should be expanded. In fact, he and his co-authors argue that

it is unethical *not* to use telemedicine in settings with limited access, *not* learn from the experience of others and *not* to implement solutions that have been proven to be effective and appropriate.¹⁴

CONCLUSION

The world has changed due to the COVID-19 pandemic, and healthcare practice has changed with it. Telehealth and telemedicine are being practised globally, including in the fields of allergy and asthma. eHealth has the potential to transform healthcare and access to it, particularly in remote, rural and underserved areas of the country. However, we need to guard against denying patients access to in-person consultations if they require them. As Townsend et al suggest, additional telemedicine guidelines need to be developed by professional societies or associations.¹¹ The Allergy Society of South Africa could most certainly play an important role in developing telemedicine guidelines for allergy, asthma and primary immunodeficiencies.

DECLARATION OF CONFLICT OF INTEREST

The author declares no conflict of interest.

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