

HEALTHCARE DELIVERY

The apps are coming! But will they be legal in South Africa?

A Barit, MB ChB, MPhil (Medical Law and Ethics)

PhD candidate, Faculty of Law, University of Pretoria, South Africa

Corresponding author: A Barit (tirab18@gmail.com)

Technology is all around us. It helps us to be more productive every day. One of the main ways it does this is by automating processes that would otherwise have taken up our time. Doctors can leverage technology to help remove the burden of performing repetitive tasks, allowing them to focus on seeing patients. This article deals with ways in which technology could be used for certain tasks such as renewing prescriptions. Using technology in such a way would fall under the concept of telemedicine. Local guidelines are assessed to ascertain whether the use of apps by patients in South Africa for healthcare advice by doctors would be legal.

S Afr Med J 2019;109(3):150-151. DOI:10.7196/SAMJ.2019.v109i3.13812

South Africa (SA) is severely under-resourced in terms of its doctor/patient ratio. As of 1 October 2018, there were 46 091 medical practitioners registered with the Health Professions Council of South Africa (HPCSA).^[1] The population as of 1 July 2018 was estimated by Statistics South Africa as 57.7 million.^[2] These figures give a doctor/patient ratio of 80 per 100 000, whereas the world average is 152. Making the best use of SA doctors' time is therefore a priority, and one of the ways this can be done is by using technology that falls under the category of telemedicine. Applying technology that is already available, the public and private health systems could be re-engineered to decrease the amount of time and money spent on common healthcare procedures. This would include having a consultation with a doctor and obtaining a prescription.

HPCSA limitations

Unfortunately the use of apps and questionnaires, as well as performing a consultation without a doctor being present with the patient, is currently forbidden in SA because the HPCSA forbids this practice in its guidelines. Telemedicine is defined by the HPCSA as '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. This is for facilitating, improving and enhancing clinical, educational and scientific healthcare and research, particularly to the under serviced areas in the Republic of South Africa.'^[3]

The definition of telemedicine requires the 'servicing' healthcare practitioner who offers advice or intervention or patient information to be connected from a remote location, while the 'consulting' healthcare practitioner conducts a 'face-to-face' interview with or examines the patient or refers patient information to a remote location for further advice or intervention.^[3] The HPCSA guidelines therefore effectively ban any consultation where the doctor is at a distance from a patient and only interacting with the patient via technology.

The HPCSA states that treatment, including the issuing of a prescription based solely on a questionnaire, is not deemed an acceptable standard of care.^[3] It also states that a medical examination must be done, and the relevant medical history must be taken before treatment or a prescription is provided.^[3] These guidelines clearly

show that the HPCSA considers that a healthcare practitioner must be physically present with the patient in order to properly assess the patient via seeing him or her face to face and conducting a physical examination. The guidelines are legally binding, as can be seen from case law. This is evident in the case of *Jansen van Vuuren v Kruger and Another NNO v Kruger*,^[4] where it was held that patients have a right to expect that their medical practitioner complies with the professional guidelines.

The case of the 'Hello Doctor' telemedicine business shows that these guidelines cannot be ignored. The company offered teleconsultations together with discretionary prophylactic medicine prescriptions, chronic illness medicine prescriptions for established diagnoses and acute medicine prescriptions via partner clinics or pharmacies using 'physician extenders' (nurse or pharmacist) via telephone. However, these services were shut down in 2011 after the HPCSA stated that a doctor was required to perform a physical examination and assess a patient in person for a proper diagnosis to be made.^[5]

Using technology to promote informed consent

Technology has advanced in the past few years to create a new category of devices known as wearables. These devices, typically a watch on the wrist, have built-in sensors that until recently would have only been found in a doctor's rooms or a hospital. The sensors include a heart rate sensor and a 2-lead ECG.^[6] Technology would help the doctor to obtain important measurements on a patient remotely and so preclude the need for a doctor or health practitioner to be physically present.

An example of how technology can be used to benefit patients and doctors is obtaining a prescription via an app, something that is already being investigated in the USA. The US Food and Drug Administration^[7] has realised the potential for this method of obtaining a prescription to bring down healthcare costs. The framework would allow for certain medicines that are usually available only via prescription from a doctor to be made available after the patient fills out a questionnaire on an app. Once the questionnaire has been successfully completed, the patient would receive an electronic

prescription that could be used at any pharmacy.^[8] This proposal has two main advantages: decreased waiting time for patients and decreased cost of healthcare, overall and to the patient. Patients would have access to certain prescriptions and re-prescriptions at the touch of a button, making it unnecessary to visit a clinic or doctor for this purpose.

Informed consent is one of the most important patients' rights in healthcare. If apps, video-calling and other such technology are to be used, could informed consent be properly obtained from the patient via an app? Smart phones would allow a patient to give informed consent on an app by carrying out the same questions and answers that would have been used in the doctor's rooms (here I refer to patients over 18 years of age – in my opinion, children would still need to go to the doctor because of their vulnerable status and different levels of capacity depending on their maturity). As set out in *Castell v De Greef*,^[9] the app's questions would have to make sure that: (i) the consenting party 'must have had knowledge and been aware of the nature and extent of the harm or risk'; (ii) the consenting party 'must have appreciated and understood the nature and extent of the harm or risk'; (iii) the consenting party 'must have consented to the harm or assumed the risk'; and (iv) the consent 'must be comprehensive, that is extend to the entire transaction, inclusive of its consequences.' Today's smart phones have fingerprint sensors and face and retinal scanners that could guarantee that the patient is the one performing the informed consent.

Technology is already being used by the National Department of Health in SA, in collaboration with an outside company, to give patients access to re-prescriptions. The organisation Right to Care^[10] has set up Pharmacy Dispensing Units (PDUs) that allow patients who have been adhering to their chronic medication to get re-prescriptions and pick up medication at the same time from the PDU near them.^[11] A pharmacist speaks to the patient via a video interface and even asks the patient questions such as 'Have you experienced any side-effects since your last collection?' This goes against the HPCSA guidelines in allowing health information to be provided using technological means without a health practitioner being physically present. Surely if the Department is using such an approach, it is clear that the benefit of such use of telemedicine has been noticed and could be extended to doctors, allowing them to speak to patients via a unit in a rural village far from a clinic?

Conclusions

This article seeks to start a discussion on what medical care a patient can or should be able to access via telemedicine and what such telemedicine should consist of. The current HPCSA guidelines pertaining to telemedicine already appear to be outdated. Use of technology can minimise cost to patients and decrease unnecessary workload for doctors. Doctors and patients rightly ask whether certain types of telemedicine could pose risks if the patient does not see a doctor in a face-to-face consultation, and it could be argued that some key information may be missed. In order to assess such risks, research must be done to verify whether those who use an app for prescriptions of drugs or see a doctor remotely are at an increased risk compared with those who get their prescriptions from a face-to-face visit with a doctor.

Declaration. None.

Acknowledgements. None.

Author contributions. Sole author.

Funding. None.

Conflicts of interest. None.

1. Health Professions Council of South Africa. Statistics. <http://www.hpcs.co.za/Publications/Statistics> (accessed 20 November 2018).
2. Statistics South Africa. Migrants flock to Gauteng. <http://www.statssa.gov.za/?p=11331> (accessed 20 November 2018).
3. Health Professions Council of South Africa. General Ethical Guidelines for Good Practice in Telemedicine. Booklet 10. Pretoria: HPCSA, 2014.
4. Jansen van Vuuren and Another NNO v Kruger [1993] 2 All SA 619 (A) (28 September 1993).
5. Bateman C. Cutting-edge telemedicine venture freezes as official bodies frown. *S Afr Med J* 2011;101(6):368-372.
6. Forbes. Apple Watch Series 4: When will the brilliant ECG feature arrive in the States and worldwide? <https://www.forbes.com/sites/davidphelan/2018/09/27/apple-watch-series-4-when-will-the-ecg-feature-arrive-in-the-states-and-worldwide/#121cd92f3a09> (accessed 21 November 2018).
7. Food and Drug Administration. Nonprescription drug product with an additional condition for nonprescription use. Spring 2018. <https://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM613666.pdf> (accessed 5 February 2019).
8. Bloomberg Quint. US to make more drugs easily available, cutting role does play. 17 July 2018. <https://www.bloomberquint.com/business/u-s-to-make-more-drugs-easily-available-cutting-role-docs-play#gs.PGFcOFE> (accessed 25 October 2018).
9. Castell v De Greef [1994] 4 All SA 63 (C).
10. Right to Care. <http://righttocare.org/> (accessed 1 February 2019).
11. Msomi N. These ATMs have swapped bills for pills. Here's why. *Bhekisisa*, 7 November 2018. <https://bhekisisa.org/article/2018-11-07-00-these-atms-have-swapped-bills-for-pills-heres-why/> (accessed 27 November 2018).

Accepted 7 January 2019.