

ETHICAL ISSUES BEHIND TELEDERMATOLOGY

Text by Dr Kong Jing Wen

An ex-colleague of mine once shared with me that writing a dermatology referral is easy. Using the SOAP note documentation format, a dermatology referral can potentially look like this:

Subjective: Rash.

Objective: Rash.

Assessment: Rash.

Plan: Refer.

Introduction

Most doctors, when faced with challenging skin lesions, do not feel confident evaluating them. In cases where the dermatological diagnosis is unclear, the patient is often referred to a dermatologist. The current dermatology referral process has resulted in uncertainty in patients due to long waiting times for diagnosis.

The term "tele dermatology" was first coined in 1995 by dermatologists Perednia and Brown. It involves the use of electronic devices to capture, store and transmit images by patients or primary care physicians to dermatologists. In 2015, the National Healthcare Group Polyclinics (NHGP) collaborated with the National Skin Centre (NSC) to set up Singapore's first tele dermatology service in primary care. Named TeleDERM, this model uses the store and forward method, where the primary care physician

uses a digital camera to capture and transmit clinical images. The patient's history and clinical images are then uploaded onto a secured online platform. The dermatologist will review these images and provide treatment recommendations. The objective of TeleDERM is to reduce specialist visits and to empower family physicians with dermatological knowledge.

Before TeleDERM was officially introduced, there were concerns about various medico-legal and ethical issues. In this article, we will group and discuss these issues under the traditional pillars of medical ethics, namely beneficence (standard of care), non-maleficence (negligence) and autonomy (patient confidentiality).

Standard of care

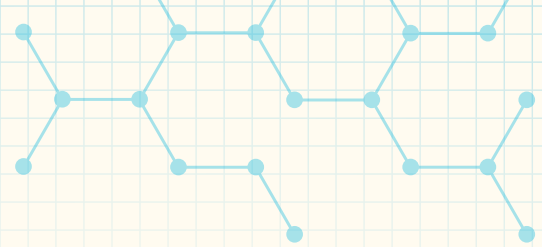
Tele dermatology is different from the traditional gold standard of face-to-face encounters. Given the limitations of two-dimensional photos, the diagnostic accuracy will never be equivalent to an in-person consultation. This raises the question of whether tele dermatology allows the healthcare providers to meet a reasonable standard of care.

Multiple studies have compared tele dermatology with conventional face-to-face consultations. These studies, which include randomised controlled trials, have demonstrated favourable outcomes. A review by Bashshur et al revealed a diagnostic concordance of

55%-83% between tele dermatology and face-to-face diagnosis.¹

Although the diagnostic concordance between the face-to-face dermatologist and the tele dermatologist falls short of 100%, a figure of 55%-83% may be adequate. In a prospective study by Nelson et al on the impact of store and forward tele dermatology on outpatient dermatological care, the diagnoses and management plans of primary care providers and dermatologists were fully concordant in only about 20% of the cases.² This suggests that rather than treating skin conditions blindly, it may be worthwhile to use technology to engage the specialists for advice.

The National Telemedicine Guidelines (2015) advocates that telemedicine must be "provided as part of a structured and well-organised system and the overall standard of care delivered by the system must not be any less compared to a service not involving telemedicine."³ The healthcare provider delivering telemedicine services should be reasonably qualified and competent for the safe provision of services. For TeleDERM, the NHGP primary care physicians involved in tele dermatology hold either postgraduate qualifications in family medicine or dermatology. In terms of staff seniority, the dermatologists reviewing the skin lesions are at the associate consultant level or above. Before tele dermatology is rolled out in any primary care facility, a site visit is conducted by the NSC team.



The objective of the visit is to ensure that the primary care physician in charge of teledermatology has developed the required competency. All the above steps are taken to make sure that within the constraints of telemedicine, the best available care is delivered to patients.

Duty of care

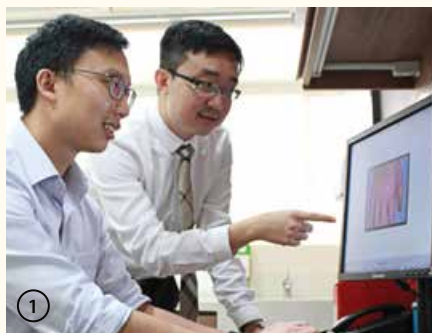
The nature of a telemedicine encounter has clouded the margins on the duty of care and has given rise to questions. Who should be the physician ultimately responsible for the patient? Is it the primary care physician, who attends to the patient face-to-face, or the teledermatologist, who gives his expert opinion on the patient's skin condition? The duty of care must be established before using teledermatology. Healthcare professionals involved in teledermatology should collaborate and clearly define their roles and responsibilities in the care of the patient.

As telemedicine is practised, it will bring about medico-legal problems. Medico-legally, the traditional principles of tort and negligence apply to teledermatology. Both the local (primary care physician) and distant (dermatologist) care providers owe a duty of care to the patient. Negligence in telemedicine occurs when there is a breach of this duty of care and damages are suffered as a result of this breach. As telemedicine is an emerging field, there is a lack of guiding statutes or laws on medical errors arising from teledermatology. The issue of demarcating the shared legal responsibility between the primary care physician and the dermatologist will be a challenge to overcome at this point of time.

Patient autonomy and confidentiality

Patient confidentiality has surfaced as one of the key issues that need to be addressed. Reasonable care must be taken to ensure confidentiality of medical information shared through technology. Existing legislations and regulations governing personal data, such as the Personal Data Protection Act and Singapore Medical Council's Ethical Code and Ethical Guidelines,⁴ must be adhered to strictly. As the patient's images are transmitted online to the dermatologist, there is the possibility that the patient's records may be unlawfully accessed. The platform via which the images are uploaded to must be secured and password protected. If the images are to be used for training and education purposes, these must be clearly spelt out in the consent form and the patient must be agreeable.

The patient's right to autonomy must be respected. The patient must be given all the necessary details regarding his care and informed consent obtained. The risks and benefits of TeleDERM and its diagnostic accuracy must be communicated. Patients must also be given the right to decline participation in telemedicine.



Conclusion

Teledermatology can help save time and costs, make dermatology services more readily available in a timely manner, as well as strengthen relationships between patients, primary care physicians and dermatologists. Although there may be medico-legal and ethical issues surrounding the use of teledermatology, it is generally safe when provided in a responsible manner. Although referring with the word "Rash" in SOAP format is logistically simpler, but in order to empower primary care physicians with dermatological knowledge, teledermatology should be the way moving forward. ◆

Legend

1. Primary care physicians, Dr Kong Jing Wen and Dr Yeap Youwen uploading an image to the teledermatologist

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References

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