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Editorial

Teledermatology: an innovative approach to consider in our ageing community

Teledermatology (TD) is the application of telecommunication techniques to practice dermatology over a distance. Commonly employed methods are the Store-and-Forward method (S&F), the Real Time method (RT) or a hybrid of the two. As S&F has less stringent requirements in infrastructure and does not require the patient and dermatologist to be present at the same time, it is the most popular method nowadays. In short, a referring health worker (family physician or nurse) simply sends a patient information together with the clinical photographs to the consulting dermatologist and in return carries out the treatment based on the advice received. On the other end, the consulting dermatologist makes a diagnosis and suggests a management plan based on the information provided. This process can be carried out at a suitable time for both parties. With the proper set-up and regulation, it has been shown to provide similar standard of care to patients who are seen in the clinic setting. Teledermatology is especially suitable for practising dermatology, which relies heavily on visual cues or images for making diagnosis; accompanied with a brief history (which can be a structured questionnaire), a management decision could be made most of the time.

Teledermatology is useful in several ways:

1. For consultative purpose: where the referring doctor presents the images of the patient together with a brief history to the consulting dermatologist for advice.
2. For triage purpose: where referrals (photos and clinical information) could be screened and prioritised according to disease severity and urgency.
3. For follow-up purpose: when a diagnosis has already been made and the patient undergone treatment. The consulting dermatologist can modify the treatment regime based on the information provided by the referring party.
4. For screening purpose: where patient-initiated image capture could be collected for initial disease screening e.g. skin cancer screening.

There are however several obstacles for this type of innovative approach to be practicable:

1. Technically, poor quality pictures could be a hindrance. It is also imperative that the data transmitted is encrypted and a secure storage and retrieving system installed.
2. Legally, who, the referring party or the consulting dermatologist should be liable for the well-being of the patient if things go wrong? If the referring person is a medical practitioner, the responsibility could be easier to define. However, if we want to popularise this method of consultation so that nurses and even patients could be the referring parties, then the consulting dermatologists will have to take full responsibility of the patients. Will they agree to shoulder these liabilities?
3. The issue of confidentiality and consent needs no further emphasis – the patients must be aware of the limitations of TD and for what other purposes of their images will be used, for example for educational purposes.
4. Ethically, because the referring health care worker has to carry out the management plan from the reporting consultant, it has to be ensured that they have the capability to do

so. If a skin biopsy is required, for example, will the referring party be able to do that?
5. Financially, since it takes time to prepare the history and to take good photos, it may not be attractive for the referring family physicians to offer such a service to the public as they may prefer seeing additional patients with the same amount of time. Besides, will the insurance companies be willing to provide a policy at a reasonable premium is another deciding factor.

Hong Kong, as with other developed countries, has an ageing population. According to the Census and Statistics Department HKSAR, the population older than 65 years of age by the year of 2025 will be more than 20%. Skin problems are not uncommon among the elderly especially degenerative and neoplastic skin problems as well as those related to immobility and incontinence. Besides those who are bed-ridden, ambulatory elderly patients may still need someone to accompany them to the clinic. Teledermatology would obviously be of great help in these cases.

Even worse, the setup of the public skin service has been stagnant in the past twenty years. As the public skin service has to look after patients with sexually transmitted diseases as well as leprosy, it is no wonder that the waiting time for specialised skin appointment has become longer and longer. Recent estimated waiting time is around 24 months.

In view of shortage of specialist care and the increasing skin problems, especially among the elderly, the adoption of TD in the public service seems to be a reasonable solution to ease the long waiting time as well as to enhance the quality of service. Of course we have to sort out all aforementioned problems in relation to the hardware and software. Hong Kong public skin service has long been underdeveloped and with the increasing reserve accumulated in the government (estimated to be over HK$900 billion at the first quarter of 2018*), the adoption of this innovative approach would not be wishful thinking if the authorities had the determination to do it!

*http://www.scmp.com/business/global-economy/article/2085785/hong-kongs-nearly-hk2tr-fiscal-reserves-should-be-spent (assessed on 21 January, 2018)

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