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Teledermatology in Hong Kong: A Cost Effective Method to Provide Service to the Elderly Patients Living in Institutions

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Background: Teledermatology has been proposed as an acceptable form of improving services in remote and loosely populated area. Its role in urban city such as Hong Kong has not been previously studied. Furthermore, most of the previous work focused on the diagnostic and management aspect but neglected the importance of cost effectiveness.

Objective: To assess the diagnostic and management accuracy of real-time teledermatology and determine its cost effectiveness in an urban city.

Methods: A live audio-visual link up was established between the telemedical centre of a teaching hospital, a nursing home and a convalescence hospital. A dermatologist saw the patients through the link-up in the morning, followed by face to face consultation in the afternoon. Diagnostic accuracy and management agreement between the two consultations was compared. Cost effectiveness was assessed in term of staff cost per patient, transportation cost, set up and maintenance cost of the centre.

Results: Of the 74 elderly patients involved in the study, diagnosis was matched in 74.3% (55) of them. Differential diagnosis and uncertain diagnosis were recorded in 17.6% (13) and 8.1% (6) cases respectively. 87.8% of the investigation and 83.8% of the management plan were matched. The cost of sending a patient to the specialty clinic was HK\$322.8 as compared to HK\$57.7 if the patient was seen through teleconsultation. The cost of sending a dermatologist to the community was HK\$445.9 per patient. Whether the set up and maintenance cost of the teledermatology will be off set, depend upon the number of patients seen per year.

Conclusion: Teledermatology is a cost effective mean to provide service to elderly institutional patients.

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Validation of the Chinese Translated Version of ISAAC Core Questions for Atopic Eczema

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Background: The International Study of Asthma and Allergies in Childhood (ISAAC) was designed to allow international comparison of epidemiological data of atopic conditions in childhood. In so doing, further aetiological information would be obtained which in turn would provide a framework for future studies. The global ISAAC results on the prevalence of atopic dermatitis indicated a 60-fold variation recorded in different countries. Such a degree of difference may be partially due to the translated questionnaires that were not validated in all the involved countries.

Objective: To validate the Chinese version of the ISAAC core questions for atopic eczema. Methods: One thousand nine hundred and twenty children aged between 3 and 5 were randomly recruited from thirteen kindergartens in Hong Kong. Using a dermatologist's clinical examination as the gold standard, we validated the Chinese version of the ISAAC core questions for atopic eczema. The Youden's Indexes obtained in our study were compared to those obtained in the United Kingdom's validation study.

Results: The Youden's Indexes obtained in our study were significantly lower than those from the United Kingdom. The low scores were likely to be due to a reduction in the sensitivity of the Chinese questionnaire, which ranged from 23.5% to 70.6%.

Conclusion: Our findings indicate that the translated questionnaire is less effective than the English version in assessing the prevalence of atopic eczema. The indication of a low prevalence of atopic eczema among the Chinese population reported in previous studies was at least partially due to problems with the translated questionnaire.