TELEDERMATOLOGY

MOBILE TELEDERMOSCOPY FOR HIGH-RISK CUTANEOUS MELANOMA PATIENTS (MOBILEMEL)

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Introduction: Six-monthly examination and sequential digital dermoscopy imaging with total body photography in high-risk cutaneous melanoma patients had shown to attain a benign to malignant excision ratio of 1.6:1 with median Breslow thickness in-situ. Replacing a clinic photographer by patient-assisted mobile teledermoscopy can improve cost efficiency while maintaining a good health-related quality of life (HRQOL) and level of care.

Objective: To investigate whether patients can transmit sufficient information with correct images of lesions identified as suspicious, and if patient-initiated visit allows an earlier detection of melanoma or non-melanoma skin cancer with less severe characteristics, reduction in the number of doctor visits, excision and overall cost while maintaining a good quality of life.

Method: This pilot study will recruit from the 296 patients in the High-Risk Clinic at the Melanoma Institute of Australia and the Royal Prince Alfred Hospital. Participants will be provided with and trained to use a portable dermoscopy and its app. The transmitted images will be stored on a secured web-based platform, that is already in use at the practices, for review by their dermatologists. Each transmission will cost $40.00 to simulate a realistic economic model of care. The costs of all doctor visits when skin lesions are excised plus all transmissions will be recorded with a diary and 3 monthly calls to keep an accurate account. Two multi-attribute utility instruments will be completed pre- and post-study, along with a survey on the participant's interaction with the intervention.

Results: The primary outcome is time to detection. Secondary outcomes include the Breslow thickness of melanoma, benign to malignant(B:M) ratio, number of excisions,

number and costs of doctor visits and transmission, and HRQOL.

Discussion: This study will determine the feasibility of this teledermatology intervention, assess the resources required, and provide insight into patient's level of interaction and acceptance.