

ITCs

Teledermatology platform for remote screening of skin cancer (Teledermatology v2.0)

TECHNOLOGY TRANSFER OFFICE
Andalusian Public Health System

A research group of the Andalusian Public Health System, belonging to Virgen Macarena University Hospital (Seville), has developed and implemented a software platform to enhance communication systems between GP and dermatologists in skin cancer diagnostics.



Description

Skin cancer is a health problem with high incidence in the general population (> 160 cases/ 100,000 inhabitants/year only in Spain). In addition, the only intervention that currently has a curative intention is the diagnosis and early surgical treatment. However, this early diagnosis is hampered by the high incidence and the difficulties of the population to access specialized health services. Early identification of skin cancer requires an adequate system of massive prioritization that allows differencing those skin lesions suspected of cancer from those other which are benign lesions.

In this context, the process and application of Teledermatology v2.0 consists in the generation of an innovative care process based on a TIC platform which enables the massive screening of skin lesions, allowing the identification of suspected cancer lesions without the need for the patient to go to the hospital. GPs take pictures of the lesions from the primary care centers which are sent for evaluation by a dermatologist through Teledermatology v2.0. The platform generates then reports with the dermatologist's decision which are sent back to the GP from the requesting center.

Thus, Teledermatology v2.0 responds to the need to make possible the massive screening of skin cancer, in order to enable its diagnosis and early treatment. To achieve this goal, this technology offers a usable, efficient and safe ITC platform.



Advantages

- Improves the efficiency of the process of remote and massive screening of skin cancer without the need for patient movement to the hospital. 51.20% of patients not referred for physical visit to the hospital. Improves the

accessibility of the general population to specialized counseling and the early diagnosis of skin cancer.

- Reliability, accuracy and validity evaluated in several studies and published in international journals (*J Telemed Telecare* 2005;11:298-303; *Arch Dermatol* 2007;143:479-84; *Dermatol Surg.* 2007;33:1092-8).
- High effectiveness: Mean delay for face-to-face care in those cases with skin cancer or suspected injury was 12.31 days vs. 88.62 days in the conventional care process (*Arch Dermatol* 2007;143:479-84).
- High efficiency: Unit cost of teledermatology was 79.78 €/ patient compared to 129.37 €/ patient of the conventional care (*J Telemed Telecare*, 2009; 15: 40-5).
- Favorable impact on initial prognosis of melanoma patient survival. Frequency of melanomas with good initial prognosis in patients treated with teledermatology was significantly higher (*Arch Dermatol.* 2012;148(9):1025-8).
- Improves the security in the transmission of clinical information and personal data.



Intellectual property

This technology is protected by intellectual property rights.



Aims

We are looking for a partner interested in a license to commercialize this innovative technology.



Classification

Field: IT – Computing – Biocomputing
Pathology: Oncology; Dermatology