
POSTER ABSTRACT

Using teledermatology in early detection of skin cancer in three urban primary care centers in barcelona. An integrated approach for skin cancer management.

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Introduction: The skin cancer is a growing pathology in our country because of the sunbathing habits and the everyday more aged population. The general practitioner (GP) has an important role in the early detection of the skin cancer, but needs a specific training in skin cancer clinical detection and in the use of dermoscopy to discriminate between a banal or a suspicious lesion. The current delay for the first dermatologist visit is about 30-60 days in our area, and much more in other areas in Catalonia.

With the aim of improving the skin cancer detection and reducing the delay in the treatment of skin cancer, in 2012, in three urban Primary Care Centres (PCC) attending a population of approximately 100.000 inhabitants in the public health system of the centre of Barcelona, it was implemented a program for skin cancer detection and store-and-forward teledermatology (TD) with a dedicated platform.

Description: A reference dermatologist assumes the attendance of patients referred from the Primary Care. He/she is responsible for conducting clinical sessions and consulting cases. A specific training in clinical detection of skin cancer and dermoscopy with the "three checkpoint list" was given to GP in the PCC. A dedicated TD platform integrated in the institutional clinical informatics system of the referral hospital (PACS) and of the 3 PCC (MIO) was developed. The dermatology department of the Hospital Clínic de Barcelona implemented a clinical protocol adapted to GP for the selection of "suspicious tumours" based on clinical examination with dermoscopy and TD. The platform was designed to allow the transmission of images, the communication of clinical reports and a quality assurance of the clinical process.

The analysis of images by the dermatologist in the referral centre was reported with the following options: 1. Banal lesion. No medical follow up needed; 2. Follow up by GP recommended; 3. Visit with the dermatologist at the PCC (ordinary or priority) for more accurate evaluation or invalid TD; 4. Visit/biopsy in the hospital recommended; 5. Invalid photo.

Finally the patient was informed of the result of the TD and an appointment with the GP or the dermatologist either at the PCC or at the Hospital was organised if it was required.

Results: A total of 1644 TD were reported from January 2012 to July of 2014 with a medium time of report of 2,02 days. The results of the TD were: No follow up needed: 8,5%; Follow up by GP: 29,3%; Ordinary/priority visit by dermatologist in PCC 39,4%; Visit by dermatologist in the hospital: 3,7%; Biopsy needed: 8,5%; Invalid photos 10,5%.

Regarding teleconsultations, 50% of visits to the reference dermatologist in PCC were not required. Images were not valid for assessment in 10,5%. Finally a total of 8,5% of the tumours detected in the TD evaluation were excised and 6% of all TD corresponded to malignant tumours. These lesions were treated in one week after the TD report of the dermatologist.

Discussion: The implementation of a TD program in these 3 PCC has allowed the GP to assume a principal role in the early detection of the skin cancer, avoiding an important number of visits to the reference dermatologist and reducing the time for dealing the suspicious lesions. The fact of having to photograph the lesions, upload them to the computer and sending them to the server (PACS) together with the clinical referral not seems to be an important workload for the GP, as all the process is integrated in the electronic clinical report. Although we have not done a ruled survey, the overall impression is that all the involved actors (patients, GP, dermatologists) are very satisfied with the program: patients because of the quick deal of their problem; GP because it allows to learn everyday with the feedback of the image and diagnosed orientation sent by the dermatologist; and the dermatologist because of the high number of visits avoided and the saving time in potential bad prognosis of some skin cancer like melanoma.

Conclusions: The implementation of a specific clinical and dermoscopy training of GP and teleconsultation of suspicious lesions was useful to improve the efficiency of skin cancer management with a significant reduction of unnecessary visits.

Keywords: teledermatology; primary care; skin cancer; early detection of cancer; integrated health care
