

Medical > In Vivo > Melanoma & Pigmented Lesion Research

131 | Cost-benefit of reflectance confocal microscopy in the diagnostic performance of melanoma.

Pellacani G, Witkowski A, Cesinaro AM, Losi A, Colombo GL, Campagna A, Longo C, Piana S, De Carvalho N, Giusti F, Farnetani F., J Eur Acad Dermatol Venereol. 2015 Oct 7. doi: 10.1111/jdv.13408.

ABSTRACT

BACKGROUND: The sub-optimal diagnostic accuracy for melanoma leads to excise a high number of benign lesions, with consequent costs. Reflectance confocal microscopy (RCM) improves diagnostic specificity, thus possibly inducing a reduction in unnecessary excisions and related costs. **OBJECTIVE:** To estimate the influence of RCM on number of benign lesions needed to excise (NNE) a melanoma, in term of clinical outcomes and costs per patient. **PATIENTS AND METHODS:** Skin neoplasms excised by the dermatology public service in the Province of Modena were retrieved from centralized pathology database. Differences in NNE between the territorial service (using dermoscopy only) and the University Hospital (adding also RCM to the patients' workflow) were calculated and cost analysis was performed through a micro-costing approach. **RESULTS:** A large reduction in benign lesions excised at University Hospital was evident, leading to NNE of 6.25 for University Hospital, compared to 19.41 for Territorial Dermatology. Since 4320 unnecessary excisions can be saved every million inhabitants, an overall yearly saving of over 280,000 Eur can be expected from the use of RCM. **CONCLUSIONS:** The systematic use of RCM was dramatically affecting the number of benign lesions excised, and this can be translated in a significant cost-benefit advantage.