

Researcher advocates cost-effectiveness analyses for improving healthcare management

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In healthcare management, cost-effectiveness analyses based on scientific evidence may bring significant benefits for patients and for the healthcare system by improving clinical practice and enabling more efficient use of resources. So they should be applied systematically to already established procedures and also prior to introducing new techniques or treatments'.

This is one of the conclusions of a Ph.D. thesis read at the NUP/UPNA-Public University of Navarre by Dr. Patricia Serra-Arbeloa, who conducted a cost-effectiveness study on a diagnostic test carried out on patients with cutaneous melanoma—the selective biopsy of the sentinel ganglion.

Lymphatic ganglions, small glands located throughout the body, comprise an important part of the immune system and help to determine whether [cancer cells](#) have acquired the capacity to metastasize. A sentinel lymph gland is defined as the first to which cancer cells are more likely to spread from a primary tumour. The biopsy of the sentinel lymph ganglion is a procedure in doctors locate one or more ganglions, remove and examine them to see if there are any cancer cells. This biopsy is normally used to determine the status of two types of cancer: breast cancer and cutaneous melanoma.

Conflicting results

Serra's Ph.D. thesis focused on evaluating the selective biopsy of the sentinel ganglion in skin cancer, "a technique widely used in managing cutaneous melanoma and whose effectiveness and costs have not been assessed despite the fact that the results of the clinical trials published are conflicting," said the researcher.

"Following a systematic review in which nearly 3,000 scientific articles on this subject were studied, it was found that countless works had been published, but only a fraction presented a high level of [scientific evidence](#)," she wrote.

Serra also confirmed that the use of this biopsy "does not offer significant differences in global survival in cases of cutaneous melanoma with thicknesses in the intermediate and thick ranges with respect to the other strategy: the mere monitoring of the patient after the removal of the initial lesion, which appears 'ex novo' and which is regarded as a minimum treatment.

"In thin melanomas it is not possible to establish conclusions with respect to survival, although the tendency is similar to that described for other thicknesses," she added.

In the cost-effectiveness analysis, this biopsy "does not show an improvement in health outcomes in terms of years of life gained and years of life gained adjusted to quality in these patients, except for a slight benefit in cutaneous melanoma with an intermediate thickness... additionally, the high costs of diagnosing cutaneous melanoma at an advanced stage point to the need to promote primary prevention and early detection programmes," said Serra.

For all these reasons, the author concluded that selective biopsy of the sentinel ganglion in cutaneous melanoma "does not have a positive cost-effectiveness ratio with respect to the technique of removing the primary

tumour followed by the monitoring of the patient, irrespective of the thickness of the tumour and timeframe."

More information: P. Serra-Arbeloa et al, Estudio descriptivo de costes en melanoma cutáneo de diferentes estadios, *Actas Dermo-Sifiliográficas* (2016). [DOI: 10.1016/j.ad.2016.09.010](https://doi.org/10.1016/j.ad.2016.09.010)

Provided by Elhuyar Fundazioa

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