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MINIMIZATION OF THE NEUROPATHIC EFFECTS OF OXALIPALTIN ADMINISTRATION AGREE TO COST-EFFECTIVENESS*

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TO THE EDITOR

Several approach are currently available to minimize the primarily toxicities linked to acute and cumulative doses of Oxaliplatin administration. These include severe peripheral neuropathy at various degree resulting in ototoxicity, dysfonic and hand&foot syndrome[1].

Recently, several studies are focused to found the better approach or the mix of the methods to prevent or minimize this adverse drug reactions. Notably, neurotoxicity, and not tumor progression, is often the cause of Oxaliplatin treatment discontinuation.

The authors, in order to minimize toxicity, have been well summarized either current actions (as interrupting and reintroducing, lengthening the duration of infusion) or combining various pharmacologic agents (i.e., Venlafaxine, Carbamazepine, etc.) with "natural molecules" (i.e *Curcumin, Ginkgo Biloba*, etc.) to oxaliplatin co-administration. The described anti-toxicity actions could be cost-effectiveness because to reducing the managements of the critic adverse reaction, including hospitalization in severe neurotoxicity.

Currently, the methods to prevent the oxaliplatin toxicity includes the detection of genetic variants known to be correlated to neurotoxicity[2]. Several genes carrying well-known polymorphisms are noteworthy, among these glutathione S-transferase (*GSTP1*), ATP-binding cassette subfamily C member 2 (*ABCC2*), nucleotide excision DNA repair cross-complementation group 1 and 2 (*ERCC1* and *ERCC2*), X-ray repair complementing defective repair in Chinese hamster cells group 1 and 3 (XRCC1 and *XCCR3*). However, if the detection of these genetic variants on previously citied genes is routinely integrated into clinical practice, optimized therapy will be gained[3]. However, it is still necessary a precise demonstration that pharmacogenomics tests offer an added value, in terms of relative cost and benefit. Furthermore, trials evaluating the pharmacoeconomic impact of genotyping testing in oxaliplatin-based therapy is still low. Overviews of cost-effectiveness studies on PGx technologies are now available; it will likely provide answers for policy integration of these tests in clinical practice. Furthermore, the major issues to consider for the clinical laboratories (who are responsible for providing pharmacogenomics services), are: i) the availability of FDA-cleared guidelines; ii) the current absence of public reimbursement; iii) the need for genotyping accuracy; and iv) the need to find clinical expertise to interpret laboratory data results[4].

Recently, several methods to assess the quality of cost-effectiveness in the cancer managements have become available. A relevant example is the National Institute for Health and Clinical Excellence (NICE). NICE forms a diverse clinical Advisory committee, which stimulates Pharma and Academic communities to produce a robust set of data, including the design and data source, for economic models of personalized healthcare[5].

It is well known that genotyping and selection

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of the most appropriate approach to minimize toxicity before cancer treatments, resulting in lower overall medical costs and higher quality of life.

Conflict of Interests:
The Authors declare that they have no conflict of interests.

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