

Anticonvulsive drug (carbamazepine) induced toxic epidermal necrolysis and screening for HLA B1502

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Dear Editor,

Epilepsy is a common neurological disorder that can be detected in any country. There are several anticonvulsive drugs. A widely used drug is carbamazepine. The present concern on this drug is its important common side effect, induction of Toxic Epidermal Necrolysis (TEN). For this side effect of carbamazepine, its pharmacogenomics and HLA relationship have widely been studied. Some recent reports show the relationship which is the origin of the new concept for screening for HLA B1502. For screening, a lot of evidence (see PubMed) imply the advantage of screening¹⁻². In addition, the new laboratory diagnostic technique increases the feasibility to implement screening in clinical practice³. Indeed, TEN induced by carbamazepine is usually serious but can be preventable if screening is applied. Now, the questions on using this test in each setting are a) availability of HLA typing (very few laboratories can perform, although this might be concordant with the few centers for the management of epilepsy today), b) the exact prevalence of HLA B 1502 in the setting, c) the cost of the test and d) the rate of TEN in the local population with a special focus on TEN due to carbamazepine. Based on my experience in this setting, the cost for screening is about 100 USD and the test can be available via private commercial laboratories. However, the problem for the screening is the affordability of the patient receiving the test since the test is not covered by the national coverage program. The prevalence of HLA B 1502 in the Thai population is reported to be between 8.5 – 27.5 %⁴⁻⁵. However, there is still no data on the prevalence of severe adverse drug reactions of carbamazepine. In addition, there is still no data available on the cost effectiveness of the test; hence, the cost effectiveness analysis

should be performed to assess the feasibility of implementing this screening test in clinical practice (in Thailand). In conclusion, although screening is interesting and probably useful, the first question to be answered is how cost effective it is to perform this screening test in each setting.

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