

WHAT IS CLAIMED IS:

1. A method of assessing the risk of a patient for developing phenytoin-induced adverse drug reactions (ADRs), comprising the steps of:

detecting the presence of at least one HLA alleles, including HLA-A, HLA-B and HLA-DRB1 selected from HLA-A*0207, HLA-A*2402, HLA-B*5101, HLA-B*4609, HLA-B*4001, HLA-DRB1*1001, and HLA-DRB1*1502; and

associating the presence of the said HLA alleles with an increased risk for phenytoin-induced adverse drug reactions, which includes Stevens-Johnson syndrome (SJS), toxic epidermal necrolysis (TEN), drug reaction with eosinophilia and systemic symptoms (DRESS), or maculo-papular eruptions (MPE).

2. The method of assessing the risk of a patient for developing phenytoin-induced adverse drug reactions (ADRs) of claim 1, wherein the step of detecting the presence of said HLA alleles including the step of using PCR-SSO to identify HLA-A, HLA-B and HLA-DRB1 genotypes.

3. The method of assessing the risk of a patient for developing phenytoin-induced adverse drug reactions (ADRs) of claim 1, wherein the step of detecting the presence of said HLA alleles includes the step of using an oligonucleotide that specifically hybridizes to the allele.

4. The method of assessing the risk of a patient for developing phenytoin-induced adverse drug reactions (ADRs) of claim 1, wherein the step of detecting the presence of said HLA alleles includes the step of using DNA prepared from the peripheral blood of the patient.