

## Nevirapine (Viramune) Sensitivity

**Pharmacologic agent:** **Nevirapine** is a non-nucleoside reverse transcriptase inhibitor (NNRTI) with activity against Human Immunodeficiency Virus Type 1 (HIV-1).

**WARNING: LIFE-THREATENING (INCLUDING FATAL) HEPATOTOXICITY and SKIN REACTIONS**

**Hepatotoxicity:** Severe, life-threatening, and in some cases fatal hepatotoxicity, particularly in the first 18 weeks, has been reported in patients. Female gender and higher CD4<sup>+</sup> cell counts at initiation of therapy place patients at increased risk; women with CD4<sup>+</sup> cell counts > 250 cells/mm<sup>3</sup>, including pregnant women receiving nevirapine in combination with other antiretrovirals for the treatment of HIV-1 infection, are at the greatest risk.

**Skin Reactions:** Severe, life-threatening skin reactions, including fatal cases, have occurred in patients treated with nevirapine. These have included cases of Stevens-Johnson syndrome, toxic epidermal necrolysis, and hypersensitivity reactions characterized by rash, constitutional findings, and organ dysfunction.

**Pharmacogenomic information:** Patients who carry the HLA-B\*3505 allele and are of Thai descent appear to be at high risk for developing a hypersensitivity skin reaction to nevirapine<sup>1</sup>. This finding needs to be confirmed in additional studies and other populations. The FDA has not changed the label at this time.

**Action:**

- **Screening for the HLA-B\*3505 allele could be considered in patients of Thai descent who are being started on Nevirapine. If this is present consideration of an alternative may be appropriate.**

**Reference & Resources**

1. Soranun, C. et al. (2009) [HLA-B\\*3505 allele is a strong predictor for nevirapine-induced skin adverse drug reactions in HIV-infected Thai patients](http://www.ncbi.nlm.nih.gov/pubmed/19104471). Pharmacogenet Genomics. 19:139-46. (<http://www.ncbi.nlm.nih.gov/pubmed/19104471>)

**General drug information obtained from RxList:** <http://www.rxlist.com/viramune-drug.htm>