Pharmacologic agent: Abacavir is a synthetic carbocyclic nucleoside analogue with inhibitory activity against HIV-1. It, in combination with other antiretroviral agents, is indicated for the treatment of human immunodeficiency virus (HIV-1) infection.

**WARNING: RISK OF HYPERSENSITIVITY REACTIONS, LACTIC ACIDOSIS, AND SEVERE HEPATOMEGALY**

Serious and sometimes fatal hypersensitivity reactions have been associated with abacavir. Hypersensitivity to abacavir is a multi-organ clinical syndrome usually characterized by a sign or symptom in 2 or more of the following groups: (1) fever, (2) rash, (3) gastrointestinal (including nausea, vomiting, diarrhea, or abdominal pain), (4) constitutional (including generalized malaise, fatigue, or achiness), and (5) respiratory (including dyspnea, cough, or pharyngitis).

**Pharmacogenomic information:** Patients who carry the HLA-B*5701 allele are at high risk for experiencing a hypersensitivity reaction to abacavir. Only 0-0.5% of patients who are HLA-B*5701 negative will develop hypersensitivity, while >70% who are HLA-B*5701 positive will develop hypersensitivity. The FDA issued an alert in July of 2008 about this and information was added to the boxed warning.

**Action required**: Screening for the HLA-B*5701 allele is recommended for all patients prior to starting abacavir therapy. This approach has been found to decrease the risk of a hypersensitivity reaction.

Patients who previously took abacavir and tolerated it have developed abacavir HSR upon restarting abacavir-containing therapy. Screening is recommended prior to reinitiation of abacavir in patients of unknown HLA-B*5701 status who have previously tolerated abacavir.

For HLA-B*5701-positive patients, treatment with an abacavir-containing regimen is not recommended and should be considered only under exceptional circumstances when the potential benefit outweighs the risk.

**Reference/Resources**

4. Information for Healthcare Professionals: Abacavir (marketed as Ziagen) and Abacavir-Containing Medications (http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/ucm123927.htm)


General drug information obtained from RxList: http://www.rxlist.com/ziagen-drug.htm