



# HLA-B\*57:01: The Genetic Spoilsport in Abacavir Therapy

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Dr Vijay Anand V, Dr Divya M , Dr Gayathri KC , Dr Dolly Daniel

Department of Transfusion Medicine and Immunohematology, Christian Medical college, Vellore

## Introduction:

1. Abacavir (ABC) is effective treatment for HIV/AIDS, but it can induce hypersensitivity reactions (HSR) in patients carrying the HLA-B\*57:01 allele.
2. There are no existing guidelines for screening this allele in the Indian population before starting therapy.

## AIM&OBJECTIVES:

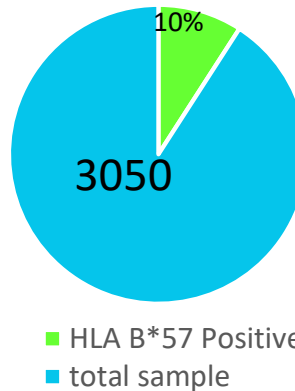
This study aimed to determine prevalence of HLA-B\*57:01 in the population and assess whether screening is warranted.

## METHODOLOGY:

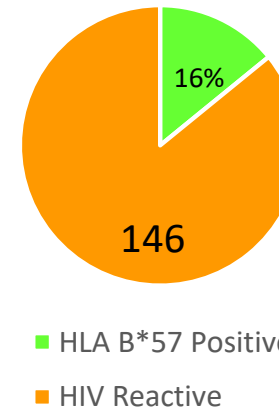
**Study:** Retrospective analysis (2022-2024) in the Department of Transfusion Medicine

**Data collected:** High-resolution(HR) typing with MIA FORA kits on the Illumina MiniSeq platform and in-house software. Data on HLA-B\*57:01 testing in people living with HIV/AIDS (PLHA) were obtained via the SSO (Luminex SD)platform.

HLA- B\*57:01  
Positive in total  
sample size



HLA -B\*57:01  
Positivity in HIV  
reactive  
individuals



## RESULTS:

1<sup>st</sup> cohort-3050 samples underwent HR- HLA typing, prevalence of HLA-B\*57:01 was approximately 10%.

In another cohort -146 individuals with PLHA who underwent HLA-B\*57:01 locus typing using SSO, 24 patients (16%) tested positive for HLA-B\*57:01.

## DISCUSSION :

Prevalence studies reported the presence of the HLA-B\*57:01 allele in 8% of individuals in Serbia (Siljic et al.) and 3% of HIV-positive patients in Iran (Baniasadi et al.).

## Conclusion:

With a population prevalence of 10%, HLA-B\*57:01 occurs at a high frequency, as shown in our study . Given its link to severe hypersensitivity reactions, pre-treatment screening for HLA-B\*57:01 is essential before initiating abacavir (ABC).

## References:

Mounzer, K., Hsu, R., Fusco, J. S., et al. (2019). HLA-B57:01 screening and hypersensitivity to abacavir, AIDS Res Ther, 16(1), 1.

