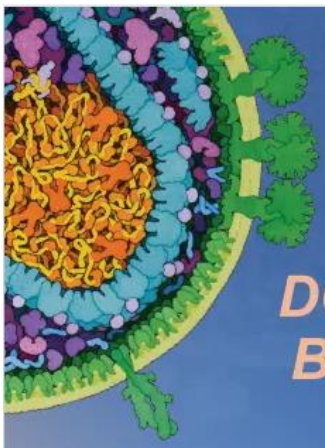


SCIENCE SPOTLIGHT™

BLIP INCIDENCE IN DOLUTEGRAVIR OR EFAVIRENZ-BASED ART DURING ACUTE HIV INFECTION

Bharat Nandakumar

University of Milan
Milan, Italy

Disclosure: Nothing to Disclose

CROI 2021

Introduction

Background:

- Transient viral blips are observed in up to 50% of persons living with HIV on cART
- Presence of blips suggest a possibility of subsequent virological failure
- Comparison of blips between efavirenz (EFV) based cART and dolutegravir (DTG) based cART are poorly outlined in literature

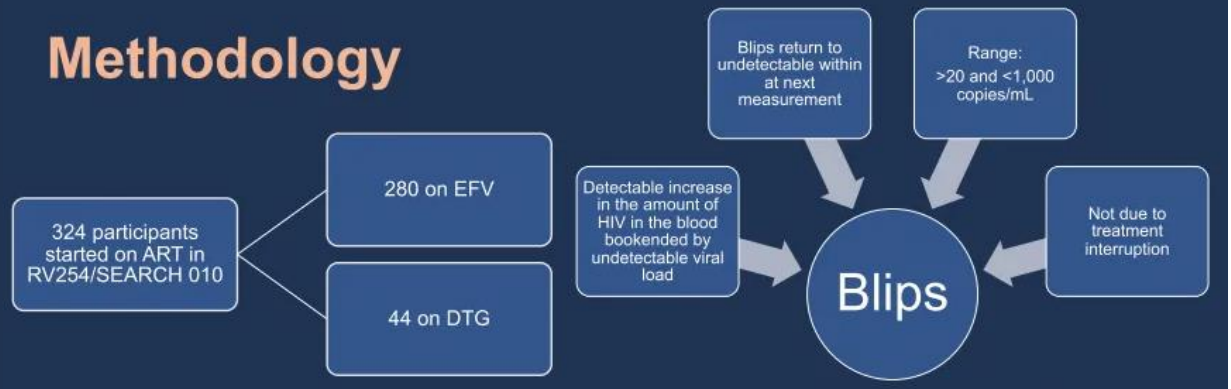
Objective:

- To compare and evaluate the incidence of blips in acute HIV infected participants started on cART regimens based on either DTG or EFV.

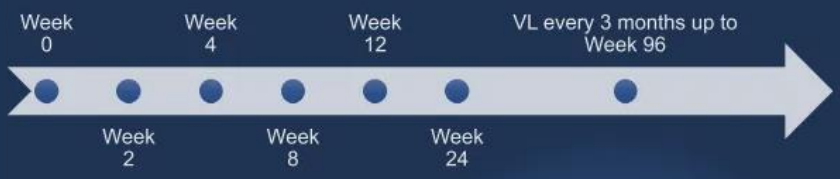
Hypothesis:

- The incidence of blips is lower in DTG in comparison to EFV based ART regimens.

Methodology



Check for blips:



Blips classified as:

Results and Key Findings

Demographics
- 94% men who have sex with men (MSM)
- Median age = 26 (IQR 22-31)

	DTG-based cART	EFV-based cART	
Participants	44	280	324
Blip Frequency	11	44	p = 0.041
Low, Medium, High Blip	6/11 (55%), 4/11 (36%), 1/11 (9%)	37/44 (84%), 7/44 (16%), 0/44	
Blip Range (c/mL)	21-398	21-160	
Blip Median	34 (IQR 24-103)	30 (IQR24-43)	p = 0.215
Median time to viral suppression (weeks)	8 (IQR 6-12)	23 (IQR 12-24)	p<0.001

- Blip incidence was not statistically different between DTG and EFV group (15.5 vs 10.8, p=0.265)
- Median time taken to reach first blip was similar in both regimens (72 weeks)

Conclusion

- There is a non-significant trend of increasing frequency and magnitude of blips in DTG compared to EFV regimen.
- Time to viral suppression was faster with DTG and may have led to a longer time-at-risk for blips.
- Magnitude of blips in both regimens was low, suggesting a low risk of subsequent viral failure.
- Participants with baseline HIV RNA>100,000 c/mL and Fiebig stages III-V at enrolment were predictive of blips.

Acknowledgements

Co-authors: Bharat Nandakumar, Carlo Sacdalan, Suteeraporn Pinyakorn, Eugene Kroon, Trevor A. Crowell, Donn Colby, Somchai Sreepleanjan, Peeriya Prueksakaew, Nitiya Chomchey, Denise C. Hsu, Sandhya Vasan, Nittaya Phanuphak

RV254 Acknowledgements: We would like to thank the ***study participants*** who committed so much of their time for this study. The participants were from the RV254/SEARCH 010, which is supported by cooperative agreements (WW81XWH-18-2-0040) between the Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc., and the U.S. Department of Defense (DOD) and by an intramural grant from the Thai Red Cross AIDS Research Centre. This research was funded, in part, by the U.S. National Institute of Allergy and Infectious Diseases. Antiretroviral therapy for RV254/SEARCH 010 participants was supported by the Thai Government Pharmaceutical Organization, Gilead, Merck and ViiV Healthcare.

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