

# Three-year Safety and Efficacy of Emtricitabine (FTC)/Tenofovir DF (TDF) and Efavirenz (EFV) Compared to Fixed Dose Zidovudine/Lamivudine (AZT/3TC) and EFV in Antiretroviral Treatment-Naïve Patients

Poster Number  
**WEPEB029**

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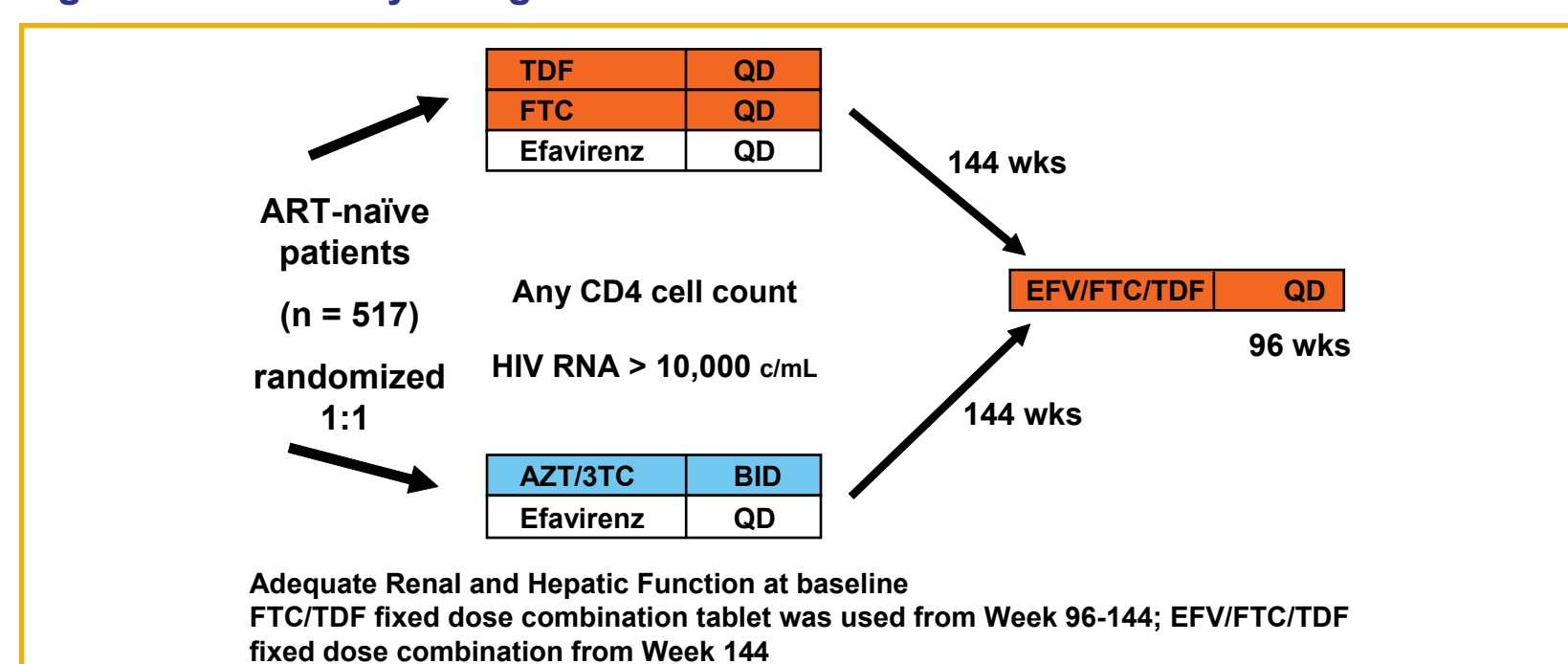


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## Introduction

Figure 1. Study Design

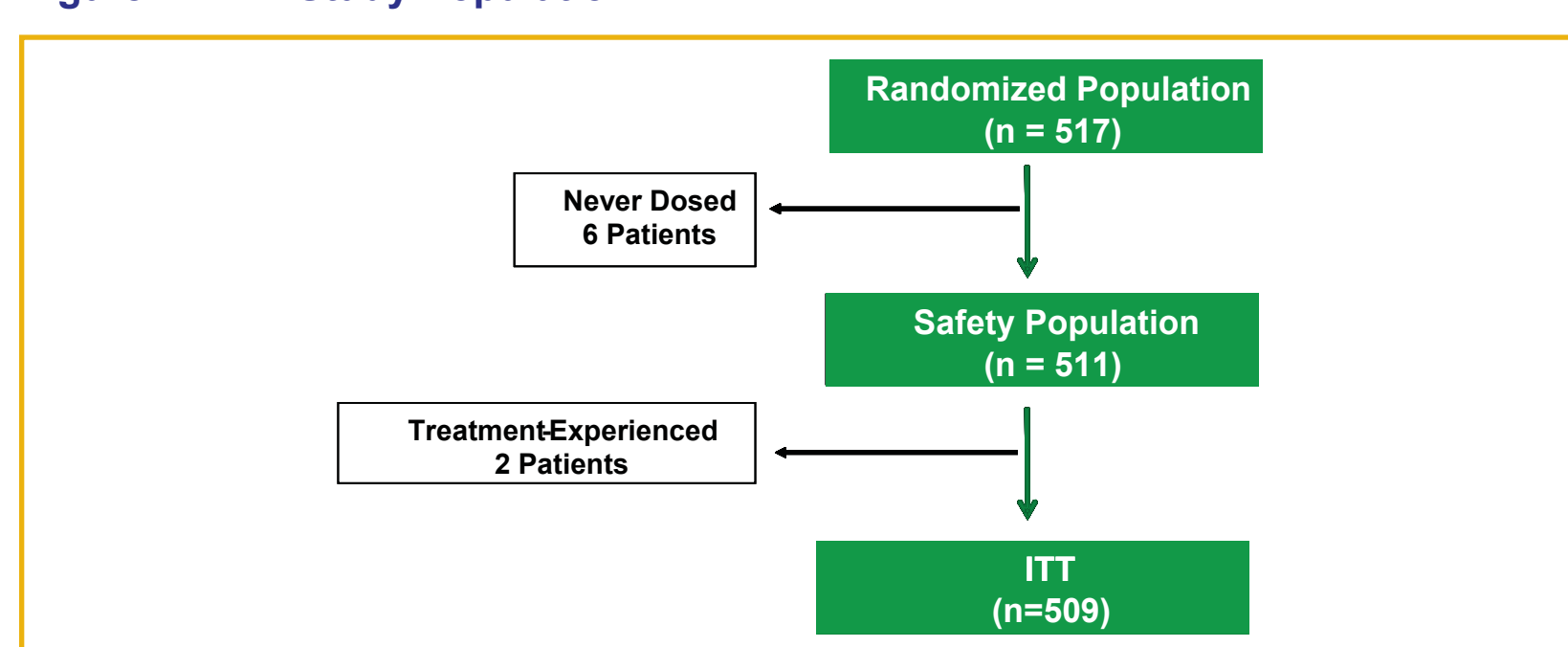


## Methods

### Statistical Analysis

- Non-inferiority trial with 48 week primary endpoint
- Efficacy endpoint: Time to Loss of Virologic Response (TLOVR)
  - Similar to ITT Missing = Failure, Switch = Failure (switching EFV to NVP due to CNS toxicity was not considered failure)
- Week 144 Efficacy Population:
  - Patients with baseline NNRTI-R mutations (n = 22) and patients who completed Week 48 and Week 96 of the study with HIV RNA below limit of quantification but did not consent to participate in the study extension after Weeks 48 and 96 (n = 31) were excluded from Week 144 analysis
- Results from analysis of Week 144 data are presented

Figure 2. Study Population



## Results

Table 1. Baseline Characteristics

	FTC/TDF (n = 255)	AZT/3TC (n = 254)
Age <sup>a</sup>	36	37
% Female	14%	13%
% White	56%	61%
% Black	25%	20%
% Hispanic	15%	16%
HIV RNA (log <sub>10</sub> copies/mL) <sup>a</sup>	5.0	5.0
% HIV RNA > 100,000	52%	50%
CD4+ (cells/mm <sup>3</sup> ) <sup>a</sup>	233	241
% < 200	42%	41%
% < 50	15%	11%

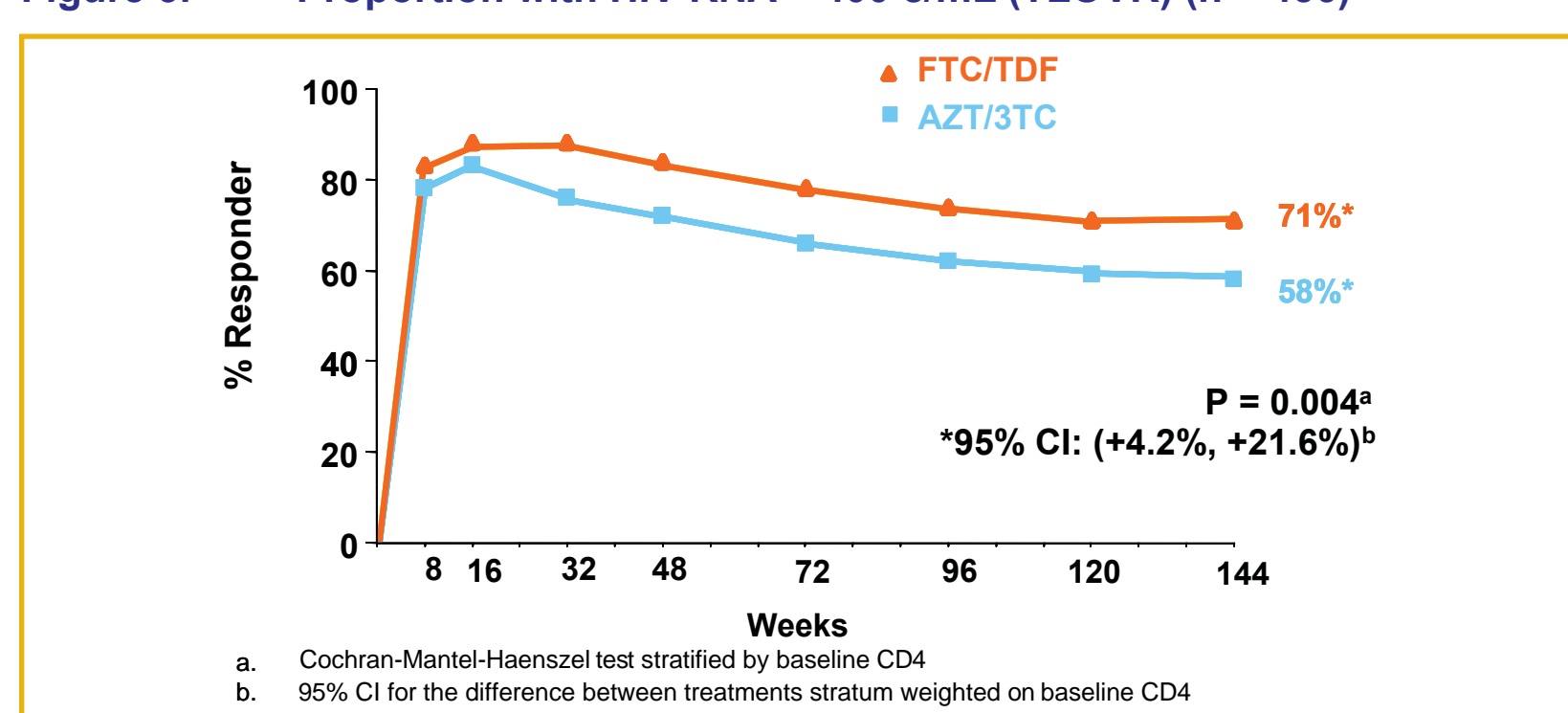
a. Median values

Table 2. Summary Outcomes Week 144 TLOVR < 400 c/mL

	FTC/TDF (n = 227)	AZT/3TC (n = 229)
Responders	71% <sup>a</sup>	58% <sup>a</sup>
Non-Responders	29%	42%
Virologic Rebound	2%	5%
Insufficient Virologic Response	<1%	<1%
Death	<1%	1%
Adverse Event	5%	12%
Withdrawal Consent/ Non Compliance	6%	8%
Lost to Follow Up	11%	11%
Pregnancy	2%	1%
Other	1%	3%

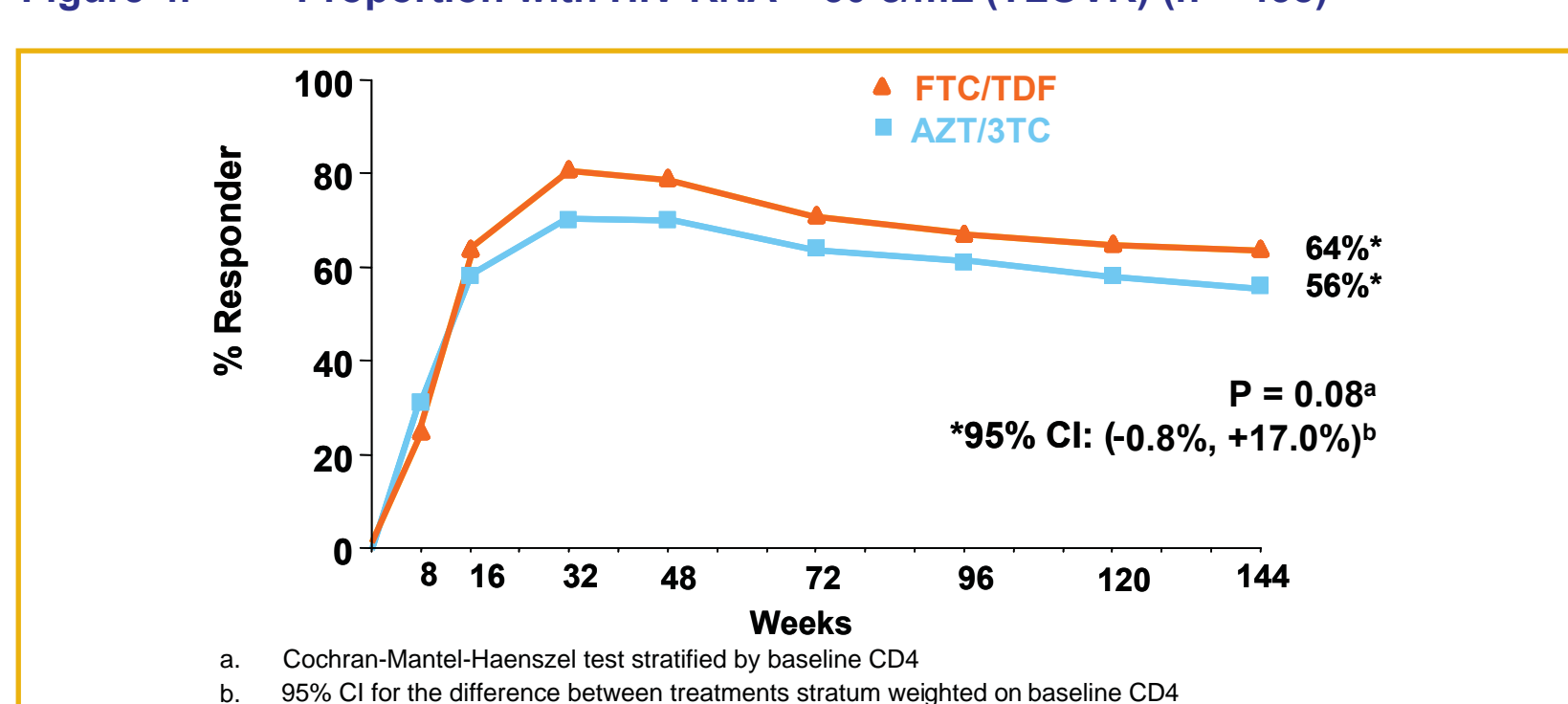
a. p = 0.004

Figure 3. Proportion with HIV RNA < 400 c/mL (TLOVR) (n = 456)



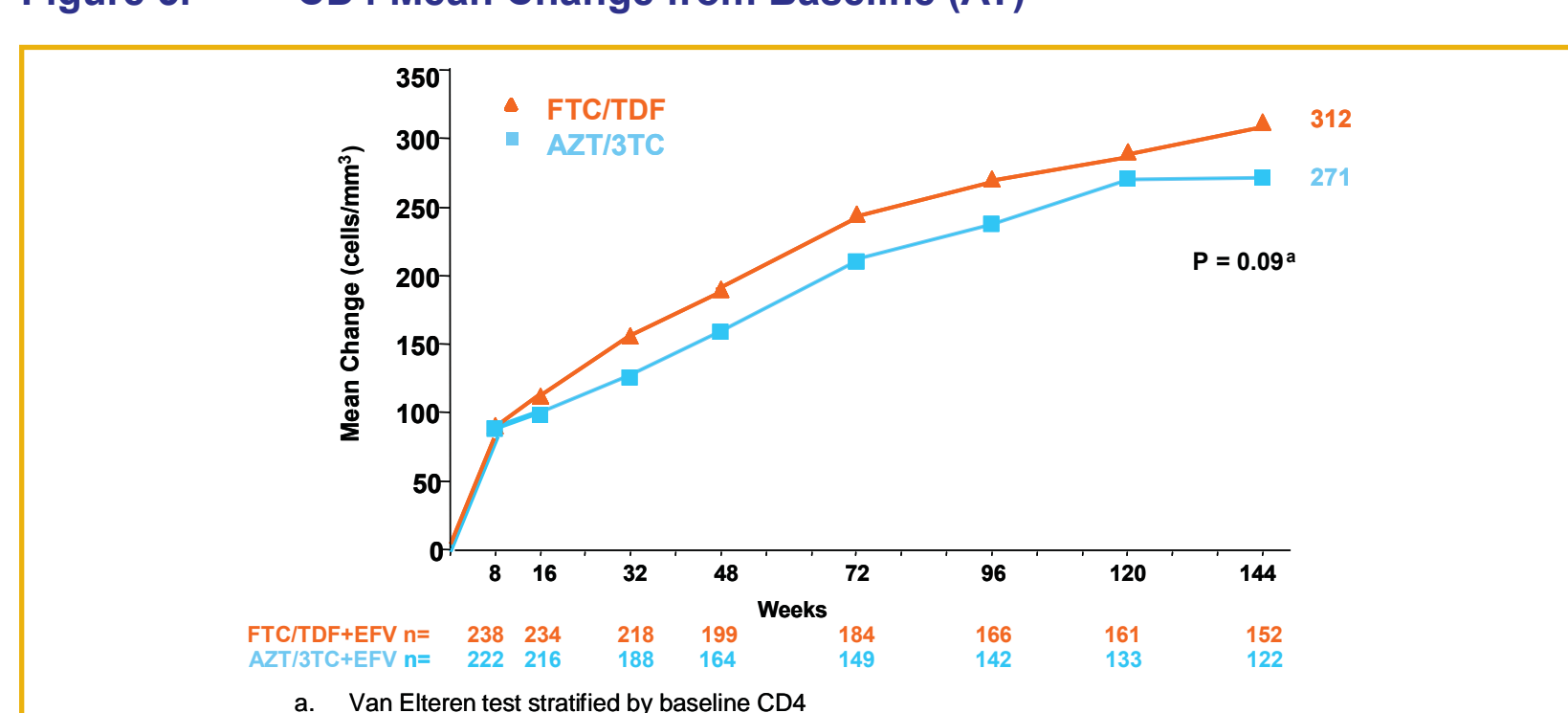
a. Cochran-Mantel-Haenszel test stratified by baseline CD4  
b. 95% CI for the difference between treatments stratum weighted on baseline CD4

Figure 4. Proportion with HIV RNA < 50 c/mL (TLOVR) (n = 458)



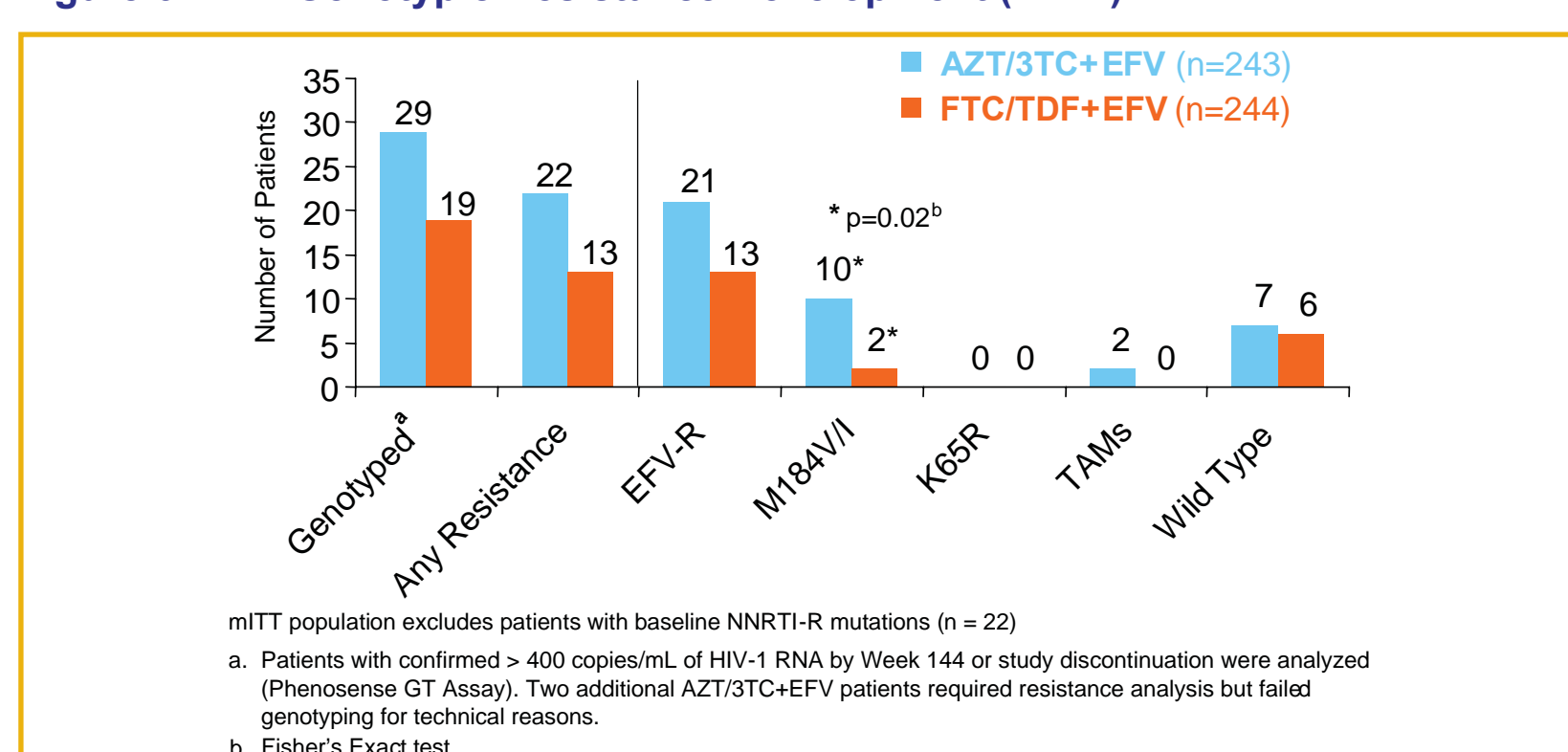
a. Cochran-Mantel-Haenszel test stratified by baseline CD4  
b. 95% CI for the difference between treatments stratum weighted on baseline CD4

Figure 5. CD4 Mean Change from Baseline (AT)



a. Van Elteren test stratified by baseline CD4

Figure 6. Genotypic Resistance Development (mITT)



## Results (cont'd)

Table 3. Adverse Events Leading to Study Drug Discontinuation Through Week 144

Safety Population	FTC/TDF (n = 257)	AZT/3TC (n = 254)
No. w/ any Adverse Event <sup>a</sup>	13 (5%) <sup>b</sup>	29 (11%) <sup>b</sup>
<b>Adverse Event</b>		
Anemia/ ↓ Hgb	0	14 (6%)
Fatigue	0	5 (2%)
Nausea	1 (< 1%)	4 (2%)
Rash	4 (2%)	1 (< 1%)
Insomnia	2 (1%)	0
Vomiting	0	2 (< 1%)
Neutropenia	0	2 (< 1%)

a. Occurring in more than 1 patient in either arm; patients may have > 1 event

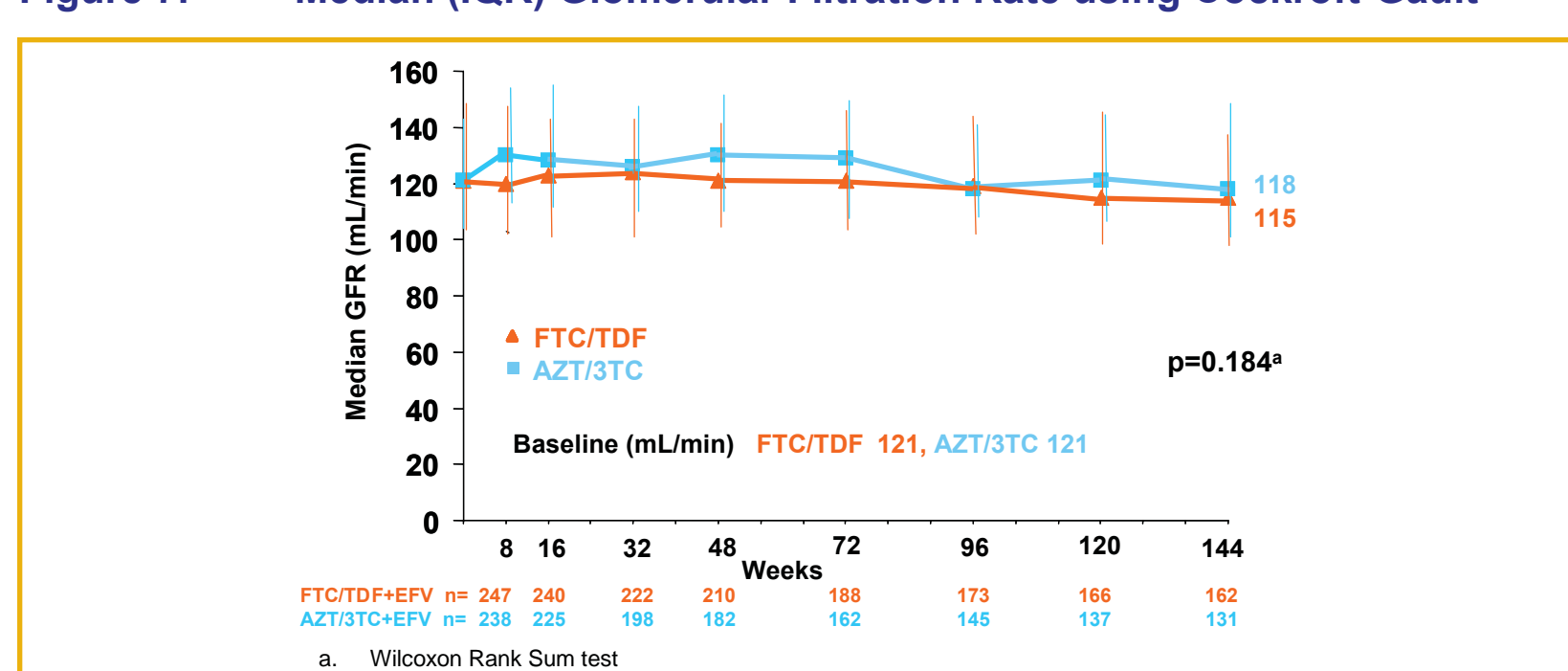
b. p = 0.01 for comparison between arms using Fisher's Exact test

Table 4. Serum Creatinine and Phosphorus through Week 144

Maximum Confirmed Toxicity Grade (mg/dL) <sup>a</sup>	FTC/TDF (n = 257)	AZT/3TC (n = 254)
<b>Serum Creatinine</b>		
1 (> 1.5 – 2.0)	1 (< 1%)	0
2 (2.1 – 3.0)	0	2 (< 1%)
3 (3.1 – 6.0)	0	0
4 (> 6.0)	0	0
<b>Serum Phosphorus</b>		
1 (2.0 – 2.2)	0	0
2 (1.5 – 1.9)	1 (< 1%)	2 (< 1%)
3 (1.0 – 1.4)	0	0
4 (< 1.0)	0	0

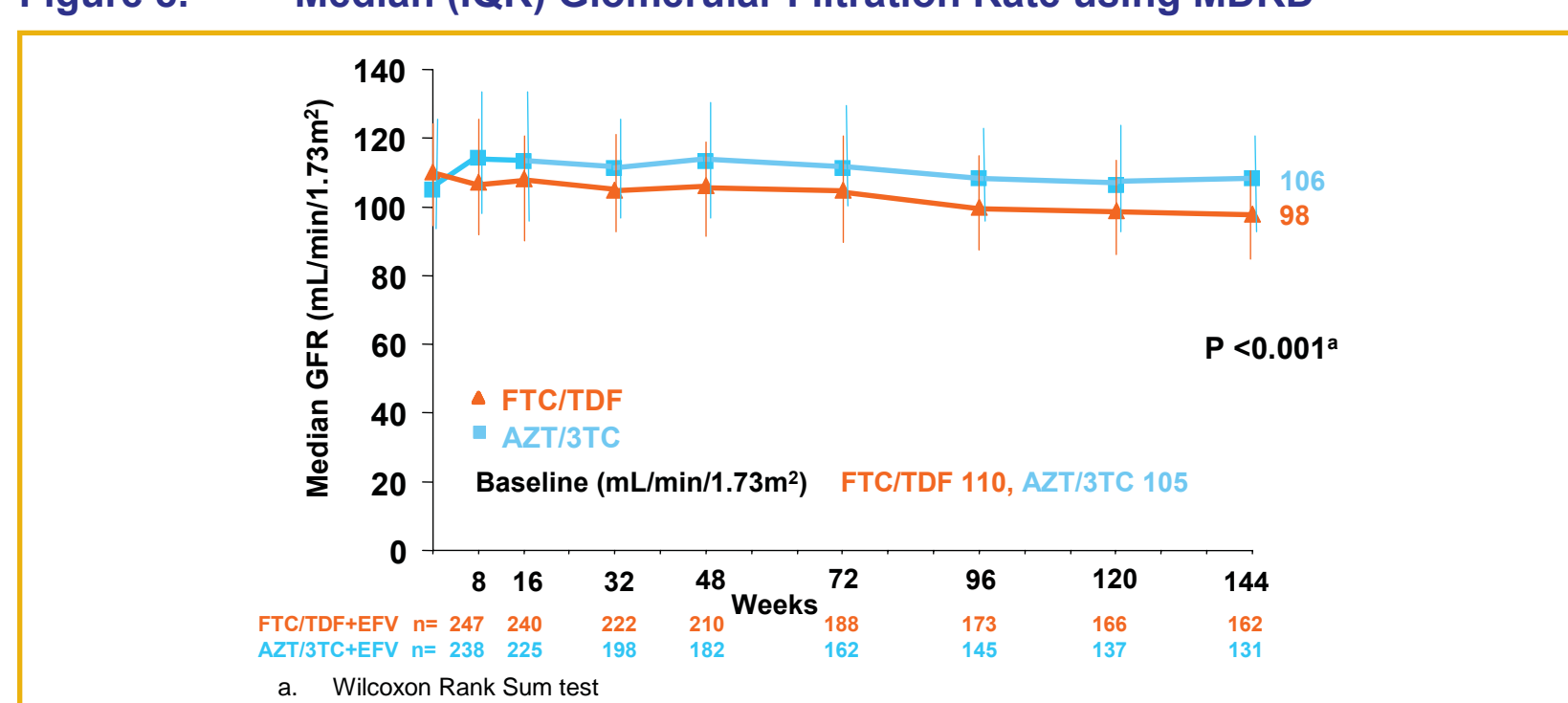
a. Confirmed toxicity grade = two consecutive visits

Figure 7. Median (IQR) Glomerular Filtration Rate using Cockcroft-Gault



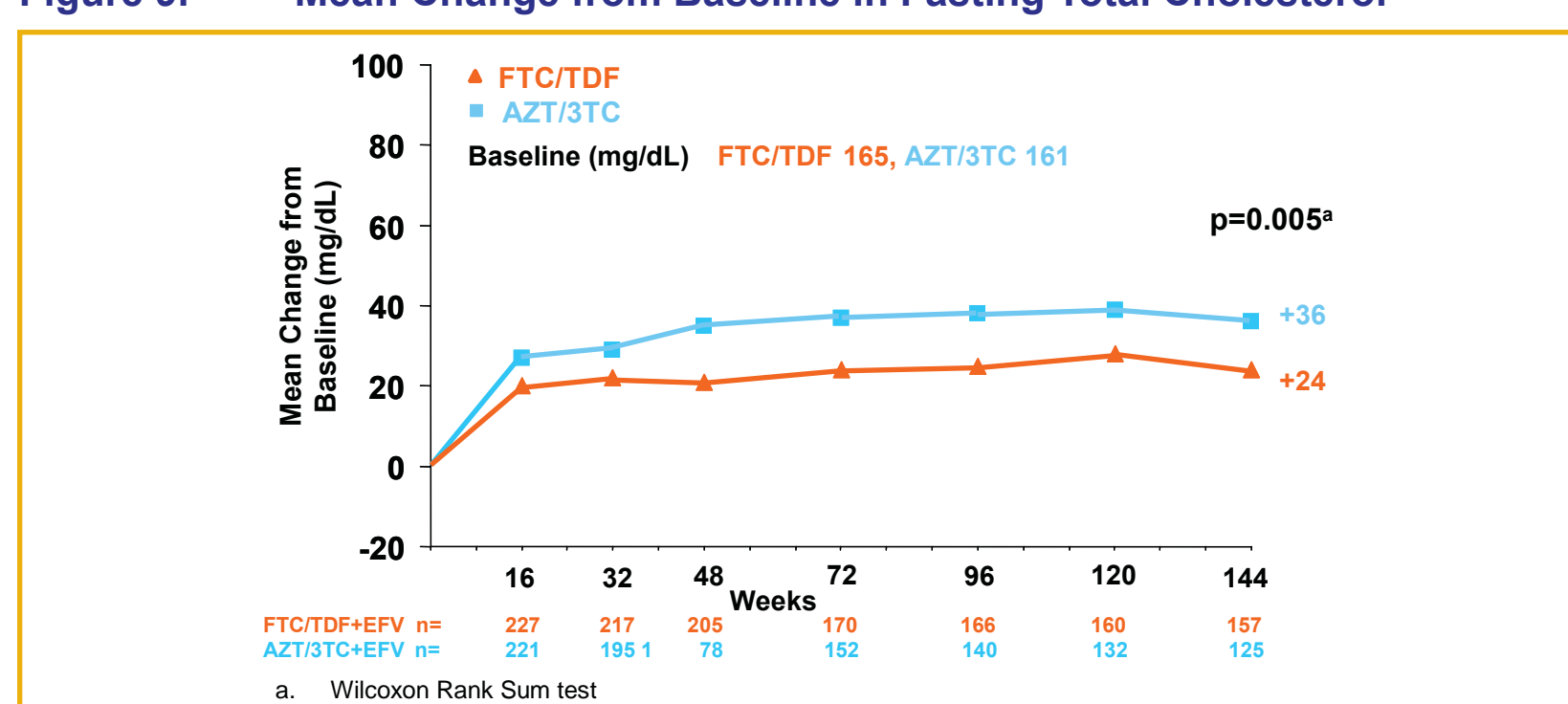
a. Wilcoxon Rank Sum test

Figure 8. Median (IQR) Glomerular Filtration Rate using MDRD



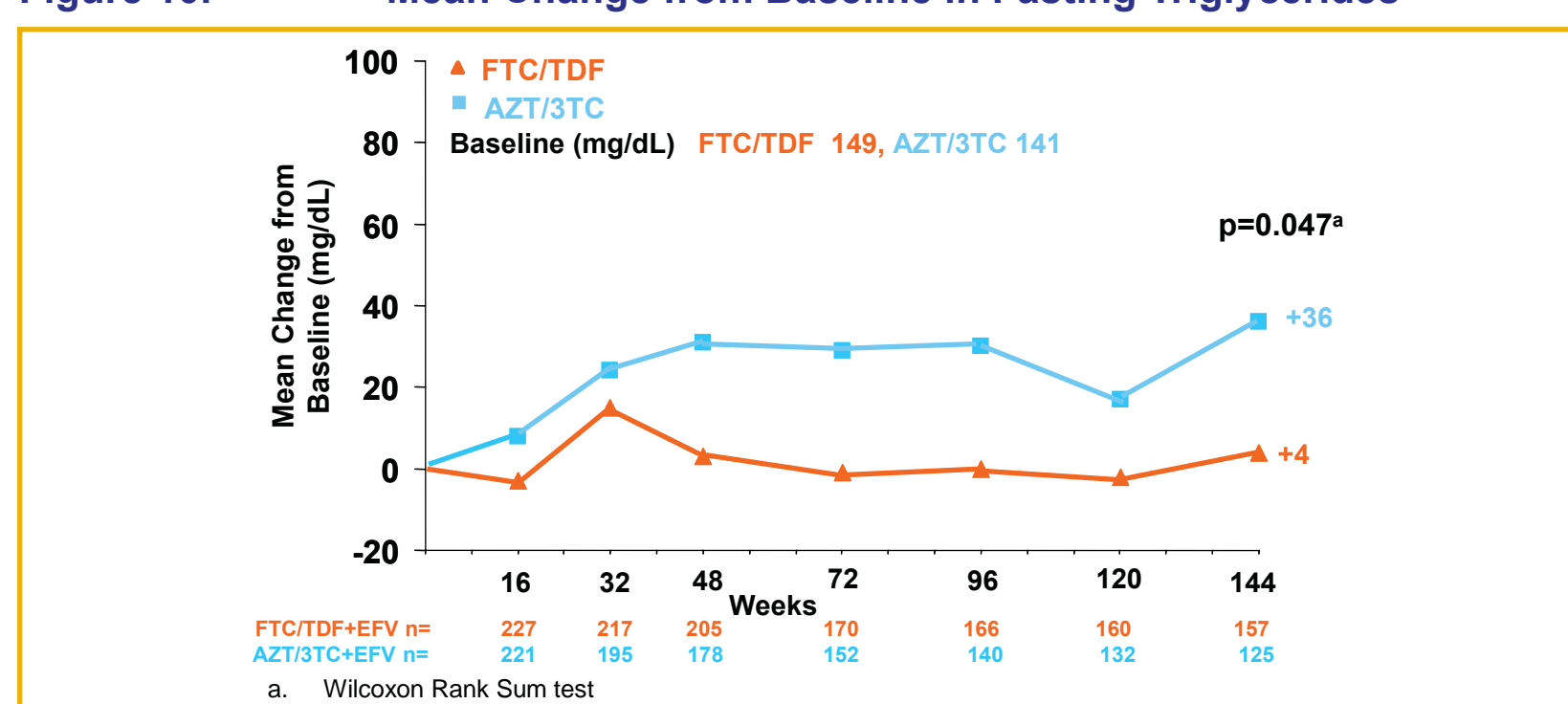
a. Wilcoxon Rank Sum test

Figure 9. Mean Change from Baseline in Fasting Total Cholesterol



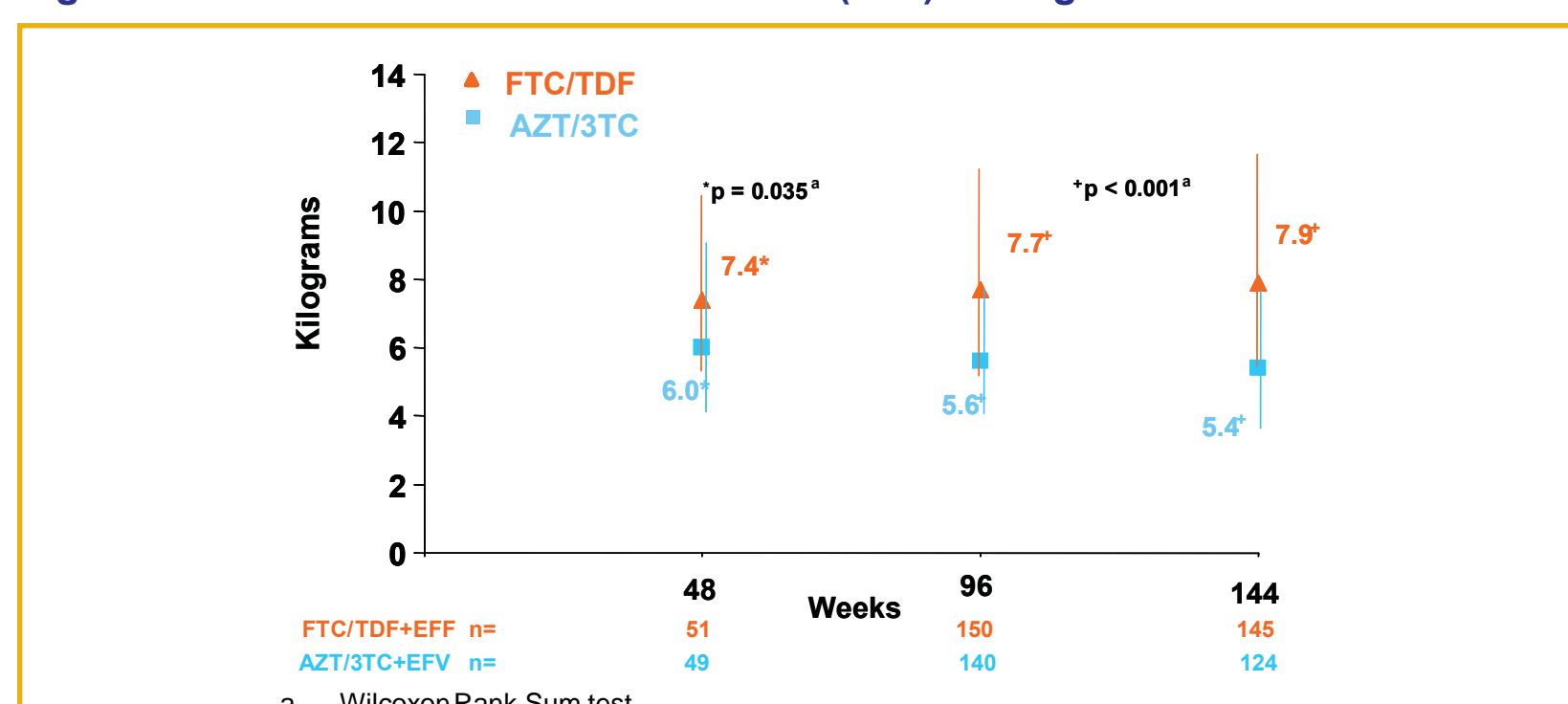
a. Wilcoxon Rank Sum test

Figure 10. Mean Change from Baseline in Fasting Triglycerides



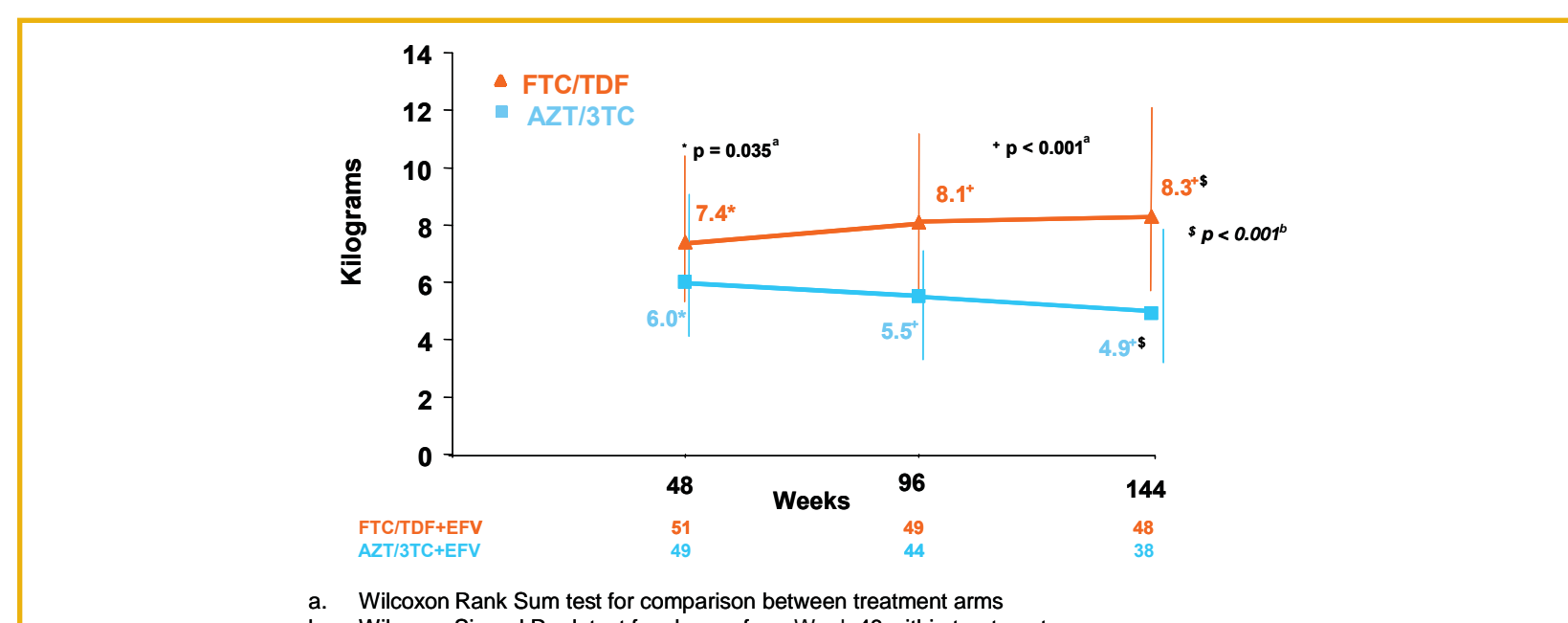
a. Wilcoxon Rank Sum test

Figure 11. Median Total Limb Fat (IQR) through Week 144



a. Wilcoxon Rank Sum test

Figure 12. Median Total Limb Fat (IQR) through Week 144 for Patients with Week 48 Data



a. Wilcoxon Rank Sum test for comparison between treatment arms  
b. Wilcoxon Signed Rank test for change from Week 48 within treatment

## Conclusions

- The FTC/TDF+EFV arm was associated with significantly greater virologic suppression to HIV RNA < 400 c/mL
  - Significantly less M184V/I was seen in the FTC/TDF+EFV arm
  - No emergence of K65R mutation was demonstrated
- No patient discontinued due to renal adverse events
- FTC/TDF+EFV was associated with significantly lower elevations in fasting cholesterol and triglycerides
- Limb fat was significantly higher in the FTC/TDF+EFV arm than in the AZT/3TC+EFV arm at Weeks 96 and 144
- There was a significant decrease in limb fat in the AZT/3TC+EFV arm and a significant increase in the FTC/TDF+EFV arm among patients with data at Weeks 48 and 144