Class-Sparing Regimens for Initial Treatment of HIV

ACTG 5142

EFV + NRTIs versus LPV/r + NRTIs versus LPV/r + EFV
ACTG 5142: Study Design

Study Design: ACTG 5142

- **Background**: Randomized, phase 3 trial comparing the efficacy, safety, and tolerability of 3 different class-sparing ARV regimens in antiretroviral naïve adults and adolescents with HIV
- **Inclusion Criteria (n = 753)**
  - Age ≥13 years
  - Antiretroviral naïve
  - HIV RNA ≥2,000 copies/mL
  - No CD4 restrictions
- **Treatment Arms**
  - EFV 600 mg QD + 2 NRTIs
  - LPV/r 400/100 mg BID + 2 NRTIs
  - LPV/r 533/133 mg BID + EFV 600 mg QD

PI-Sparing Group
Efavirenz + 2 NRTIs
(n = 250)

NNRTI-Sparing Group
Lopinavir-ritonavir + 2 NRTIs
(n = 253)

NRTI-sparing Group
Lopinavir-ritonavir + Efavirenz
(n = 250)

Source: Riddler SA, et al. N Engl J Med. 2008;358:2095-106.

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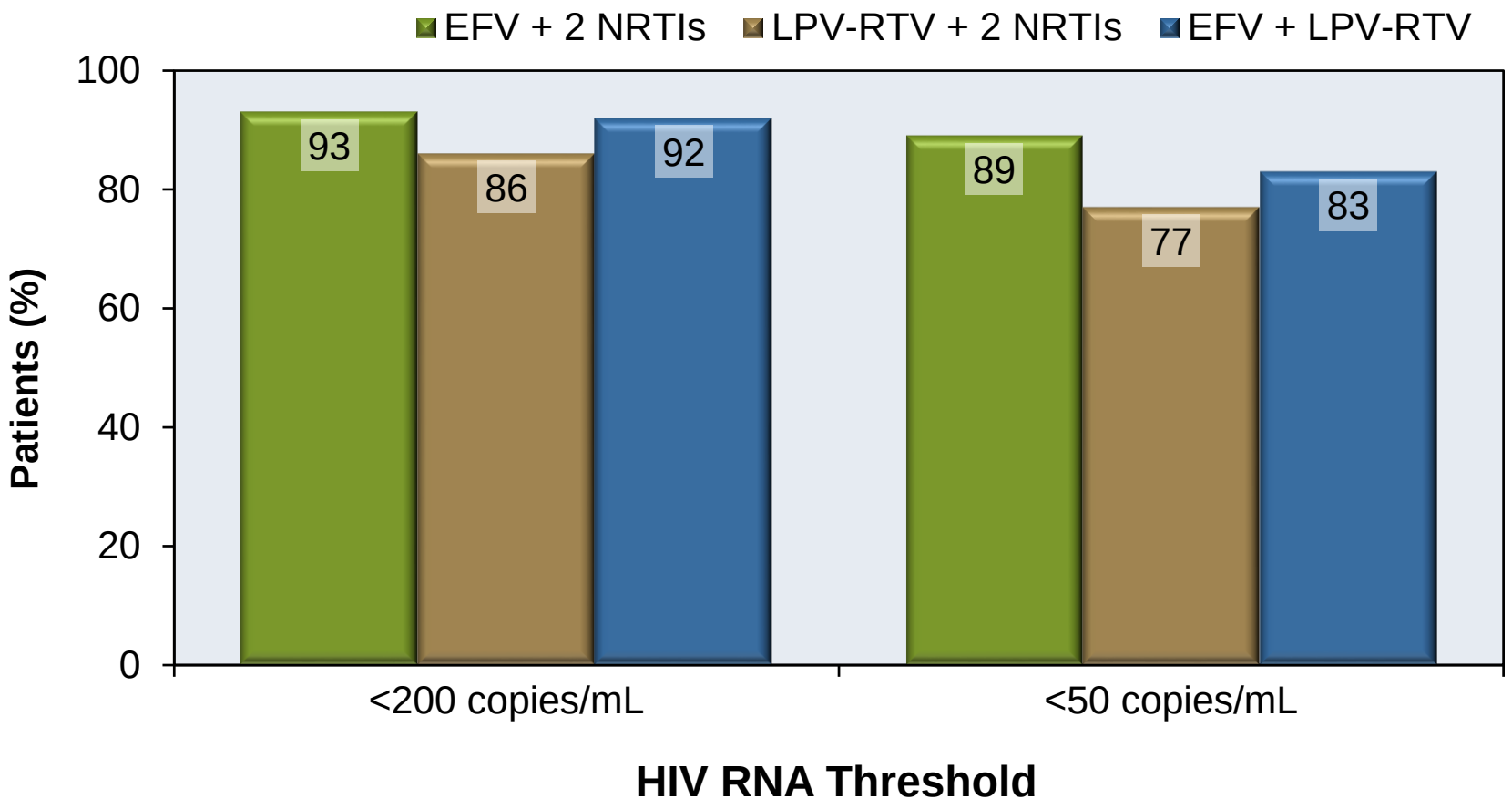
ACTG 5142: Results

Week 96: Virologic Response



Source: Riddler SA, et al. N Engl J Med. 2008;358:2095-106.

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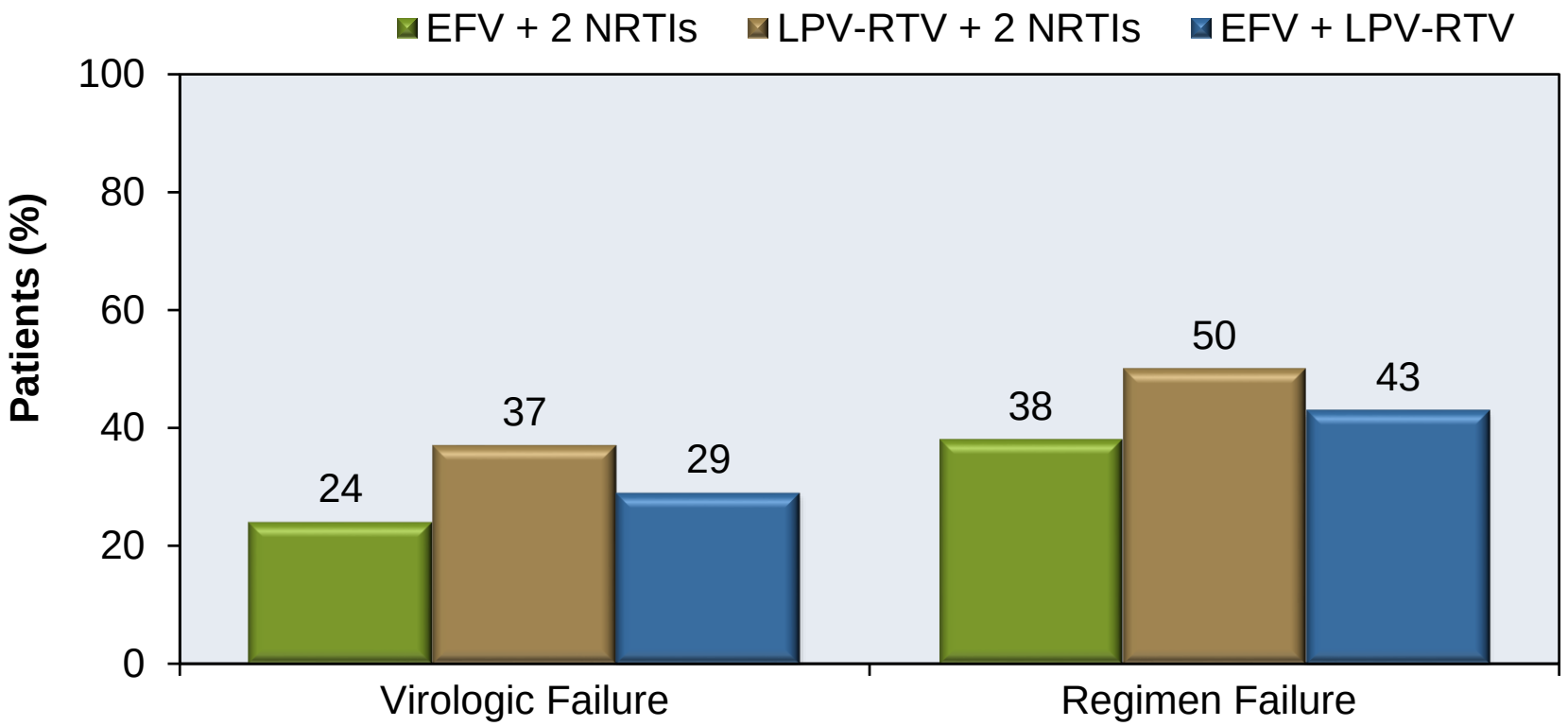
ACTG 5142: Results

Virologic or Regimen Failure



Virologic failure = lack of suppression of plasma HIV-1 RNA by 1 log10 or rebound before week 32 or a lack of suppression to <200 copies/mL or rebound after week 32.
Regimen failure = first of either virologic failure or toxicity-related discontinuation

Source: Riddler SA, et al. N Engl J Med. 2008;358:2095-106.

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ACTG 5142: Results

Summary of Resistance Mutations at Time of Virologic Failure*			
Variable	**EFV + 2 NRTIs** (%)	**LPV/r + 2NRTIs** (%)	**LPV/r + EFV** (%)
Virologic failure events	24	37	29
Any mutation	48	21	70
NRTI-associated mutation	30	19	11
M184V	17	17	0
K65R	7	0	2
NNRTI-associated mutation	43	3	66
K103N	24	0	55
Any protease mutation	85	78	80
Major protease mutation	0	0	4
Mutation associated with 2 classes	26	1	7

*Percentages of patients with mutations were calculated for those who had an available genotype at the time of virologic failure.

Source: Riddler SA, et al. N Engl J Med. 2008;358:2095-106.

EFV + NRTIs versus LPV/r + NRTIs versus LPV/r + EFV
ACTG 5142: Conclusions

Conclusions: “Virologic failure was less likely in the efavirenz group than in the lopinavir-ritonavir group. The virologic efficacy of the NRTI-sparing regimen was similar to that of the efavirenz regimen but was more likely to be associated with drug resistance.”

Source: Riddler SA, et al. N Engl J Med. 2008;358:2095-106.

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