Lopinavir-Ritonavir plus either Raltegravir or 2-3 NRTIs

# SELECT Trial

# Lopinavir-Ritonavir plus either Raltegravir or 2-3 NRTIs
# SELECT: Study Design

## Study Design: SELECT

- **Background**: Randomized, phase 3, open-label trial to compare dual therapy with lopinavir-ritonavir plus raltegravir with WHO 2nd line standard-of-care regimen of lopinavir-ritonavir plus NRTIs in persons with HIV.
- **Inclusion Criteria (n=412)**
  - Age ≥18 years
  - On initial ART containing NNRTI for ≥24 weeks
  - No virologic failure
  - Naïve to protease inhibitors
  - No known broad NRTI resistance
- **Treatment Arms***
  - Lopinavir-ritonavir + Raltegravir
  - Lopinavir-ritonavir + 2 or 3 NRTIs

**Lopinavir-ritonavir 400-100 QD + Raltegravir 400 mg BID**
(n = 258)

**Lopinavir-ritonavir 400-100 QD + 2-3 NRTIs**
(n = 254)

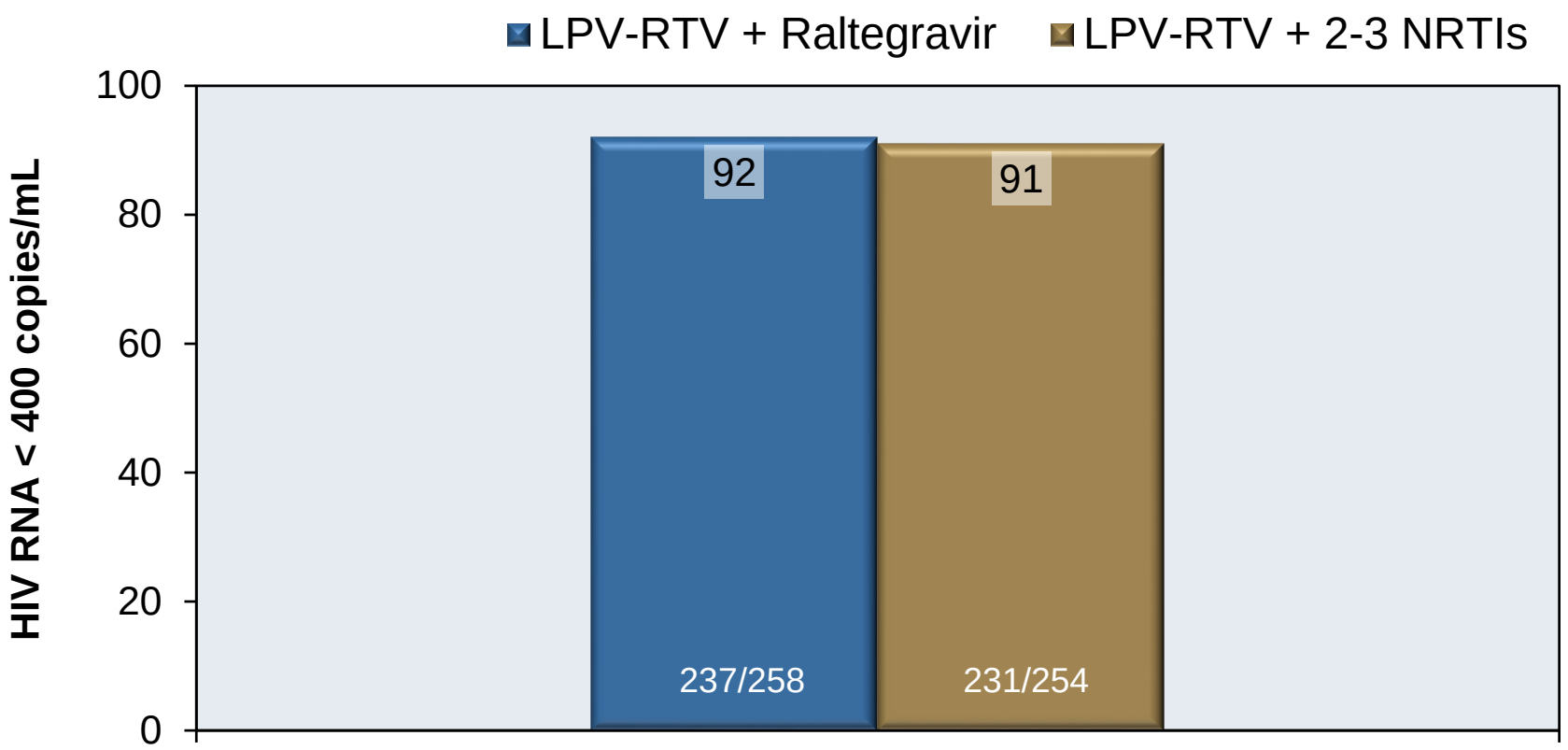
*95% in RAL group and 97% in NRTI group had at least 1 NRTI RAM at baseline

**Source: La Rosa AM, et al. Lancet HIV. 2016;3:e247-58.**

# Lopinavir-Ritonavir plus either Raltegravir or 2-3 NRTIs

## SELECT: Results

### Week 48: Virologic Response (Missing Data Ignored)




Source: La Rosa AM, et al. Lancet HIV. 2016;3:e247-58.

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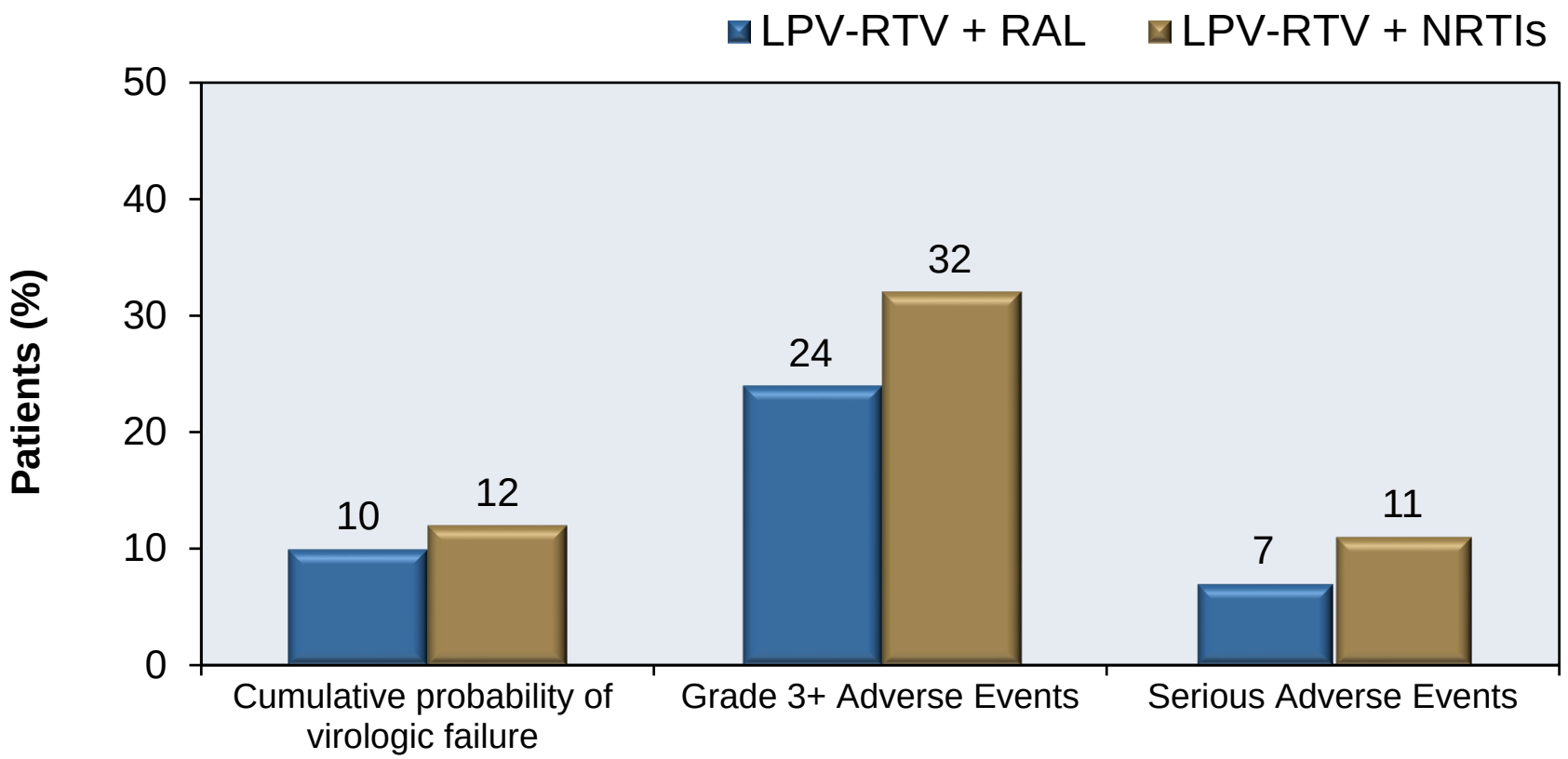
# SELECT: Results

## Virologic Failure and Adverse Events




**Source: La Rosa AM, et al. Lancet HIV. 2016;3:e247-58.**

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## SELECT: Results

| HIV Resistance Testing at Virologic Failure | | |
|---|---|---|
| | **LPV-RTV + RAL** (n = 258) | **LPV-RTV + NRTIs** (n = 254) |
| Patients with virologic failure, n (%) | 46 (18%) | 50 (20%) |
| Any mutation at virologic failure | 85% | 90% |
| New resistance mutations at virologic failure | 26% | 29% |

**Source: La Rosa AM, et al. Lancet HIV. 2016;3:e247-58.**

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## SELECT: Conclusions

**Interpretation**: “In settings with extensive NRTI resistance but no available resistance testing, our data support WHO's recommendation for ritonavir-boosted lopinavir plus NRTI for second-line antiretroviral therapy. Ritonavir-boosted lopinavir plus raltegravir is an appropriate alternative, especially if NRTI use is limited by toxicity.”

**Source: La Rosa AM, et al. Lancet HIV. 2016;3:e247-58.**

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