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

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

Lopinavir-Ritonavir plus either Raltegravir or 2-3 NRTIs

SELECT: Results

Week 48: Virologic Response (Missing Data Ignored)

![Graph showing virologic response at 48 weeks.]

- **LPV-RTV + Raltegravir**: 237/258 (92%)
- **LPV-RTV + 2-3 NRTIs**: 231/254 (91%)

Lopinavir-Ritonavir plus either Raltegravir or 2-3 NRTIs

SELECT: Results

Virologic Failure and Adverse Events

Lopinavir-Ritonavir plus either Raltegravir or 2-3 NRTIs
SELECT: Results

### HIV Resistance Testing at Virologic Failure

<table>
<thead>
<tr>
<th></th>
<th>LPV-RTV + RAL (n = 258)</th>
<th>LPV-RTV + NRTIs (n = 254)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients with virologic failure, n (%)</td>
<td>46 (18%)</td>
<td>50 (20%)</td>
</tr>
<tr>
<td>Any mutation at virologic failure</td>
<td>85%</td>
<td>90%</td>
</tr>
<tr>
<td>New resistance mutations at virologic failure</td>
<td>26%</td>
<td>29%</td>
</tr>
</tbody>
</table>

Lopinavir-Ritonavir plus either Raltegravir or 2-3 NRTIs

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.”

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