Safety of switching raltegravir 400mg twice daily to raltegravir 800mg once daily in virologically suppressed patients

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Background

• Raltegravir and efavirenz are first-line 3rd ARV agents in the London guidelines
• Twice-daily regimens may not be convenient for all patients
• Raltegravir is licensed at a dose of 400mg twice-daily, but its half-life and long binding to the HIV integration complex suggest it may be effective in a once-daily dose for select patients
Switch strategy

- PARIS study
- ODIS
- QDMRK
- PK/PD QDMRK

Therapeutic review to determine switch criteria

Undetectable viral load (<40 copies/mL) for > 6 months with 2 consecutive VL<40

Full virological history of no viral resistance/virological failure while on any ART
Switch strategy continued

• It was agreed in the HIV drugs sub group that;

  All switches to be referred to the virtual HIV MDT clinic
  Recommended that all patients are followed up for 1\textsuperscript{st} VL within 3 months of switch

• It was agreed that pharmacy would;

  Counsel all patients on unlicensed dosage
  Provide all patients with a specially developed PIL
  Take a full medication history for each patient to identify any DDIs
  Counsel all patients to take with/after food
  Document all of the above in the patients medical record using a specially designed counselling template
Aims

• Data was collected for all patients switched to RAL OD from October 2015 to January 2017 and analysed to observe;
  – The number of patients that maintained virological suppression
  – The number of patients who discontinued RAL OD for any reason
## Results

### Baseline characteristics

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<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Number of patients switched to RAL OD</td>
<td>271</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean CD4 (c/µL) prior to switch</td>
<td>603</td>
<td></td>
<td></td>
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<tr>
<td>3rd ART agent prior to switch</td>
<td>RAL BD</td>
<td>NNRTI</td>
<td>Other</td>
</tr>
<tr>
<td></td>
<td>200 (74%)</td>
<td>66 (24%)</td>
<td>5 (2%)</td>
</tr>
<tr>
<td>ART backbone prior to switch</td>
<td>TDF/FTC</td>
<td>ABC/3TC</td>
<td>Other</td>
</tr>
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<td></td>
<td>205 (75%)</td>
<td>61 (23%)</td>
<td>5 (2%)</td>
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</table>
# 1st VL Results

<table>
<thead>
<tr>
<th>Description</th>
<th>Count</th>
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<tbody>
<tr>
<td>Number of pts with 1st VL result post-switch</td>
<td>192 (71%)</td>
</tr>
<tr>
<td>Median time to 1st VL post-switch (weeks)</td>
<td>12</td>
</tr>
<tr>
<td>Number of pts with 1st VL &lt; 40</td>
<td>188 (98%)</td>
</tr>
<tr>
<td>Number of pts with 1st VL &gt; 40</td>
<td>4 (2%)</td>
</tr>
<tr>
<td>Number of pts with 1st VL &gt; 40 whose repeat VL &lt; 40</td>
<td>3 (75%)</td>
</tr>
</tbody>
</table>

- Of the 4 patients with a 1st VL >40 the results were 43, 45, 59 and 68 respectively
- 3 of the 4 patients repeat VL was <40 with no change to the ARV regime
- 1 pts repeat VL (1st VL = 45) has yet to be repeated
### 2nd VL Results

<table>
<thead>
<tr>
<th>Description</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of pts with 2nd VL post-switch</td>
<td>85 (43%)</td>
</tr>
<tr>
<td>Median time to 2nd VL post-switch (weeks)</td>
<td>28</td>
</tr>
<tr>
<td>Number of pts with 2nd VL &lt; 40</td>
<td>81 (95%)</td>
</tr>
<tr>
<td>Number of pts with 2nd VL &gt; 40</td>
<td>4 (5%)</td>
</tr>
<tr>
<td>Number of pts with 2nd VL &gt; 40 whose repeat VL &lt; 40</td>
<td>3 (75%)</td>
</tr>
</tbody>
</table>

- Of the 4 patients with a 2nd VL >40 the results were 41, 54, 65 and 153 respectively
- 3 of the 4 patients repeat VL was <40 with no change to the ARV regime
- 1 pts repeat VL (2nd VL = 41) has yet to be repeated
Switches from RAL OD for any reason including adverse events

- Nausea: 1
- Bloating: 1
- Suicidal ideation: 1
- Insomnia/nightmares: 1
- Joint inflammation: 1
- Simplification to STR: 4
- Preferred RAL BD: 3

n=12
Discussion

• Between October 2015 and January 2017, 271 patients who met the pre-determined switch criteria chose to switch to RAL OD

• 188/192 (98%) patients with a 1st VL post-switch have a VL<40

• 81/85 (95%) patients with a 2nd VL post-switch have a VL<40

• No patients have 2 consecutive VL>40 post-switch*

• Only 5/271 (1.8%) patients switched to an alternate regimen due to reported ADRs

*pending the 2 pts who are awaiting a repeat 1st/2nd VL respectively
Conclusions

In patients established on ART who desire a once-daily regimen and who meet the local guideline criteria, the use of raltegravir 800mg once-daily is safe in terms of maintaining an undetectable viral load as well as patient tolerability.
Acknowledgements

• All members of the Chelsea and Westminster HIV multidisciplinary team
• The HIV pharmacy team at Chelsea and Westminster for helping with data collection
• All our patients, without whom there could be no ‘good outcomes’ to ART
• BHIVA for inviting me to speak today