UK clinicians’ approach to ART in primary HIV infection; comparison with the BHIVA guidelines

Dr. Julie Fox

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Background

• Due to lack of evidence, the optimal management of PHI unknown\(^2\)

• Current BHIVA guidelines (2013) recommend ART in any of the following situations:
  
  • AIDS defining illness
  • Neurological involvement
  • Confirmed CD4<350
  • Treatment as prevention (TasP)
Background

- Since guidelines published more data has become available:
  - single CD4<350 at PHI is associated with greater mortality than those whose CD4 cell counts remaining >350\(^1\)
  - ART in PHI is associated with
    - higher chance of reaching CD4 >900\(^2\)
    - enhanced CD4:CD8 recovery\(^3\)
    - lower levels of established reservoir\(^4\)
    - benefit largest if ART started within 3 months of negative test\(^1\)

- We therefore wanted to explore current practice in the UK

Objectives

• To identify clinical scenarios in which ART in PHI is discussed and/or recommended by clinicians, focussing on:
  • CD4 count
  • Presence of symptoms
  • HIV status of sexual partners

• To investigate how soon after PHI clinicians start ART

• To assess whether recommendation of ART varied by PHI caseload
Methods

- Opinio web based survey conducted in December 2014
  - Invitations sent to all BHIVA & BASSH members 3 occasions
  - 13 questions
  - Clinicians asked whether they would discuss ART, recommend ART or do neither in a range of clinical scenarios

- 291 responses received:
  - 77% clinicians therefore analysis limited to this group
    - 59% responders were consultant-grade
      - Representing ~37% of BHIVA consultant members
UK regions of represented by survey respondents (n=223)
Number of PHI patients seen in last year

<table>
<thead>
<tr>
<th></th>
<th>%</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Seen any patients with PHI in last 12 months?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>22</td>
<td>48</td>
</tr>
<tr>
<td>Yes</td>
<td>78</td>
<td>175</td>
</tr>
<tr>
<td><strong>Number of PHI patients seen in last 12 months</strong></td>
<td>Median [range]</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>[0, 50]</td>
<td></td>
</tr>
<tr>
<td><strong>Offered ART to a patient with PHI in last 12 months?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>19</td>
<td>32</td>
</tr>
<tr>
<td>Yes</td>
<td>81</td>
<td>140</td>
</tr>
<tr>
<td><strong>Proportion of PHI patients offered ART in PHI in the last 12 months</strong></td>
<td>None</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Some but less than half</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Approximately half</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>More than half but not all</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>All</td>
<td>58</td>
</tr>
</tbody>
</table>
Asymptomatic PHI, Regular HIV +ve partner

- CD4 > 500 (n=208)
  - Recommend ART: 63%
  - Discuss ART: 18%
  - Neither discuss or recommend ART: 20%

- CD4 ≥ 350 & ≤ 500 (n=209)
  - Recommend ART: 55%
  - Discuss ART: 33%
  - Neither discuss or recommend ART: 13%

- Single CD4 < 350 (n=213)
  - Recommend ART: 58%
  - Discuss ART: 38%
  - Neither discuss or recommend ART: 5%

Confirmed CD4 < 350 (n=213)
- Recommend ART: 84%
- Neither discuss or recommend ART: 14%
- Discuss ART: 2%
PHI, Regular HIV +ve partner, CD4>350

Neurological symptoms (n=215) 91%
AIDS defining illness (n=215) 96%
Severe seroconversion illness (n=215) 77%

Recommend ART  Discuss ART  Neither discuss or recommend ART
How soon after diagnosing primary HIV infection would you start a patient on ART? (n=204)

- Don't advise ART in PHI: 9%
- Immediately i.e. 1st visit: 14%
- When resistance test is back: 21%
- <1 week: 17%
- <1 month: 9%
- <3 months: 4%
- Depends on clinical situation: 10%
- Other: 15%
TASP: asymptomatic PHI, CD4 > 350

- Regular HIV-partner & consistent condom use (n=206)
  - Recommend ART: 60%
  - Discuss ART: 35%
  - Neither discuss or recommend ART: 5%

- Regular HIV-partner & inconsistent condom use (n=205)
  - Recommend ART: 76%
  - Discuss ART: 22%
  - Neither discuss or recommend ART: 2%

- Casual partners & consistent condom use (n=204)
  - Recommend ART: 58%
  - Discuss ART: 34%
  - Neither discuss or recommend ART: 8%

- Casual partners & inconsistent condom use (n=206)
  - Recommend ART: 70%
  - Discuss ART: 27%
  - Neither discuss or recommend ART: 3%

- No partners since diagnosis (n=202)
  - Recommend ART: 64%
  - Discuss ART: 17%
  - Neither discuss or recommend ART: 19%
**Effect of PHI caseload on ART prescribing**

Clinicians with ↑ PHI caseload were more likely to:
- offer ART at any CD4 (Everyone offered at confirmed CD4 (BHIVA))
- discuss TASP if -ve regular partner + consistent condoms

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>OR</th>
<th>95% CI</th>
<th>N</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommend ART at CD4&gt;500</td>
<td>1.8</td>
<td>1.3, 2.6</td>
<td>226</td>
<td>0.001</td>
</tr>
<tr>
<td>Recommend ART at CD4 350-500</td>
<td>1.4</td>
<td>1.1, 2.0</td>
<td>229</td>
<td>0.023</td>
</tr>
<tr>
<td>Recommend ART at single CD4&lt;350</td>
<td>1.5</td>
<td>1.0, 2.1</td>
<td>231</td>
<td>0.037</td>
</tr>
<tr>
<td>Recommend ART at confirmed CD4&lt;350</td>
<td>1.0</td>
<td>0.7, 1.6</td>
<td>232</td>
<td>0.857</td>
</tr>
<tr>
<td>Recommend ART for severe SC illness</td>
<td>2.6</td>
<td>1.3, 5.1</td>
<td>232</td>
<td>0.005</td>
</tr>
<tr>
<td>Discuss TasP - regular HIV negative partner &amp; consistent condom use</td>
<td>1.4</td>
<td>1.0, 2.0</td>
<td>220</td>
<td>0.049</td>
</tr>
<tr>
<td>Discuss TasP - regular HIV negative partner &amp; inconsistent condom use</td>
<td>1.6</td>
<td>0.9, 2.6</td>
<td>219</td>
<td>0.093</td>
</tr>
<tr>
<td>Discuss TasP - casual partners &amp; consistent condom use</td>
<td>1.1</td>
<td>0.8, 1.6</td>
<td>218</td>
<td>0.452</td>
</tr>
<tr>
<td>Discuss TasP - casual partners &amp; inconsistent condom use</td>
<td>1.3</td>
<td>0.9, 2.0</td>
<td>220</td>
<td>0.224</td>
</tr>
<tr>
<td>Discuss TasP - no partners since diagnosis</td>
<td>1.3</td>
<td>0.9, 1.9</td>
<td>216</td>
<td>0.154</td>
</tr>
</tbody>
</table>

Univariate analysis per 5 patient increase in PHI caseload
Conclusions

- In the UK 80% clinicians have seen a case of PHI in the past 12 months

- Current BHIVA guidelines adhered to with the exception of:
  - recommending ART with a confirmed CD4<350
  - discussing TASP with everyone

- Clinicians with larger PHI caseloads were more likely to recommend ART in PHI at CD4 counts >350 and single CD4<350

- Variation in practice identified and this may reflect lack of RCT evidence available and lack of precise detail in current guidelines as a consequence

- The fact that people are consciously starting ART very soon after diagnosis shows awareness of recent data
Acknowledgements

- Everyone who completed the survey

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- **poster no. P33 Parsons et al: For patients’ perspective of ART in PHI**

Any questions?