Maintaining engagement in care and HIV viral suppression in patients with mental health and substance abuse co-morbidities: outcome of an audit

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Introduction
- Lifelong engagement with care and sustained HIV viral load suppression are key to the personal and population benefits of antiretroviral therapy (ART).
- Poor retention in care increases the likelihood of higher HIV viral loads and decreased CD4 cell count predicting poorer survival with HIV infection.
- HIV engagement and management can be complicated by poor mental health (MH), alcohol and other drug (AOD) abuse.
- Using a case management model and an enhanced care program (ECP) St. Vincent’s Hospital HIV, Immunology & Infectious Diseases Unit seeks to promote engagement in care and adherence to ART for our most vulnerable patients.
- This program has never been formally evaluated.
- Participants attend without appointment Monday – Friday, daily, weekly, fortnightly, monthly or PRN for assessment, support and ART via directly observed therapy or via loaded dosette boxes.

Method
- We identified the variables of interest
  1. Patient characteristics
  2. Receipt of ART (engagement and medication adherence)
  3. Outcome (HIV viral suppression)
- We conducted a comprehensive retrospective review of medical records and electronic databases of 26 patients enrolled in the ECP between 1st July 2014 – 31st June 2015.
- One investigator extracted relevant data and entered it onto a specifically designed Excel database.
- A second investigator cross checked the source data and data entry for accuracy.
- Data was analysed using simple descriptive statistics.

Aim
- To formally describe and objectively audit our nurse led ECP.

Results

Table 1. Patient Characteristics (n=26)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Years living with HIV</th>
<th>Years on the ECP</th>
<th>Level of support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>23 (88%)</td>
<td>45 (9) years</td>
<td>14 (7) years</td>
<td>Daily 6 (23%)</td>
</tr>
<tr>
<td>Female</td>
<td>2 (8%)</td>
<td></td>
<td></td>
<td>Weekly 11 (42%)</td>
</tr>
<tr>
<td>TG</td>
<td>1 (4%)</td>
<td></td>
<td></td>
<td>Fortnightly 4 (15%)</td>
</tr>
</tbody>
</table>

Table 2. Co-morbidities (n=26)

<table>
<thead>
<tr>
<th>Co-morbidities (mean/SD)</th>
<th>Mental health diagnosis^ (n/%)</th>
<th>AOD abuse (n/%)</th>
<th>Hepatitis C ^^ (n/%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 (2)</td>
<td>Total 19 (73%)</td>
<td>10 (40%)</td>
</tr>
<tr>
<td></td>
<td>15 (60%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

^Major: depression, bipolar disorder or schizophrenia
^^ PCR positive

Table 3. Results (n=26)

<table>
<thead>
<tr>
<th>Engaged in care (n/%)</th>
<th>On ART (n/%)</th>
<th>Undetectable viral load at last review (n/%)</th>
<th>Sustained undetectable viral load^ (n/%)</th>
<th>CD4 T cell count (10^6/L) at last review (n/%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>26 (100%)</td>
<td>26 (100%)</td>
<td>19 (73%)</td>
<td>12 (46%)</td>
<td>&lt;100 1 (4%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>101-250 6 (23%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>251-350 3 (11%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&gt;350 16 (61%)</td>
</tr>
</tbody>
</table>

^ 12 months

Conclusions
- A program of enhanced nursing care for HIV positive men and women with significant MH and AOD co-morbidities facilitates engagement in care but not universal or sustained viral suppression.
- Further research is required into the disconnect between perfect engagement and sustained HIV viral suppression in this population.

Disclosure of interest statement
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References