A Retrospective Study of the Impact of Pharmacist’s Medication Review and Counseling in IMAC on Use of Non-HAART Chronic Medications in HIV-infected Patients

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Study Background

HIV-infected patients’ HAART and other medication managed by HIV specialist nurses in QEH

Improved survival of HIV-infected patients & Increased comorbidities

More complicated medication regimen

Specialist nurses mainly focus on HAART and are not specifically trained to manage other chronic medications

Pharmacist – managed Interdisciplinary Medication Adherence Clinic (IMAC): Medications for comorbidities

Specialist nurse clinic: HAART
Study design

- Retrospective, historically – controlled study
- Patients referrals from 29/6/2017 to 31/3/2018

Primary outcomes

To demonstrate that IMAC can improve HIV-infected patients’ use of non-HAART chronic medication

- Classified by PCNE 8.02
- Rated according to the Overhage’s assessment scale by 1 consultant physician, 2 specialist nurses and 1 uninvolved pharmacist

Secondary outcomes

- Change in medication adherence to non-HAART chronic medications between baseline and discharge from IMAC
- Change in therapeutic markers after at least 1 IMAC appointment
- Patient satisfaction to IMAC
Major Findings

- 29 patients recruited
- 26 DRPs identified
  - Inappropriate timing or dosing intervals (12)
  - Take less drugs than prescribed / Does not take the drug at all (9)
- 32 pharmacists interventions
  - Patient (drug) counseling (23)
- Assessment: Significant (100%)
- Statistically significant change of medication adherence to non-HAART chronic medication [65.4% (±16.6) to 100%, p=0.004]
- Statistically significant change in fasting glucose after ≥1 IMAC appointment [8.6mmol/L (±3.0) to 7.5% (±2.1), p=0.047]
- Positive patient feedback

### Pharmacist interventions

<table>
<thead>
<tr>
<th>Pharmacist interventions</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient (drug) counseling</td>
<td>23</td>
<td>71.9</td>
</tr>
<tr>
<td>Patient referred to prescriber</td>
<td>3</td>
<td>9.4</td>
</tr>
<tr>
<td>Intervention proposed to prescriber</td>
<td>2</td>
<td>6.3</td>
</tr>
<tr>
<td>Prescriber informed only</td>
<td>2</td>
<td>6.3</td>
</tr>
<tr>
<td>New drug started</td>
<td>1</td>
<td>3.1</td>
</tr>
<tr>
<td>Drug stopped</td>
<td>1</td>
<td>3.1</td>
</tr>
</tbody>
</table>

### Overall rating of IMAC

<table>
<thead>
<tr>
<th>Overall rating of IMAC</th>
<th>Very good</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Very poor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>88.9</strong></td>
<td>0</td>
<td>11.1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

3, Significant Recommendation would bring patient care to a more acceptable, appropriate level (i.e., standard of practice), including: national guidelines and protocols and supported by acceptable references to the literature.