Facilitating primary care non-antiretroviral drug prescribing in people living with HIV: the “THINK ARV” project

Su Shin Lim¹, Heather Leake Date¹, Mark Shaw¹, Brian Flynn², Lucy Kendall³, Jaime Vera¹,⁴

¹Brighton and Sussex University Hospitals NHS Trust, ²NHS Brighton and Hove CCG
³MSD UK, ⁴Brighton and Sussex Medical School
Background

• Comorbidities primarily managed by General Practitioners (GPs)\(^1\)

• Higher risk of medicines-related problems (MRPs) when multiple prescribers and dispensing pharmacies\(^1\)

• Existing Lawson Unit (LU) service:
  • HIV CPD for primary care teams
  • specialist pharmacy advice by email and landline

\(^1\) Leake Date H, Clinical Pharmacist (2018) 10: 2
THINK ARV phase 1

• ascertained local GPs’ confidence when prescribing for people living with HIV (PLWH)
• identified need for additional support for GPs prescribing non-antiretrovirals (non-ART) for PLWH
• elicited preferred methods of support
• informed phase 2

2 Knox C et al, BHIVA 2018, P12
THINK ARV phase 2 objectives

• Further raise GPs’ awareness of potential MRPs associated with primary care prescribing for PLWH on ART

• Develop, implement and evaluate an intervention to reduce MRPs by facilitating GPs’ real-time access to HIV pharmacy (pharmacist and technician) advice
Organisation and governance

- NHS/MSD joint working agreement
- MSD: project management & financial support
  - 0.3wte Band 7 pharmacist for 1 year
  - purchase of mobile phone handset
  - cost of sticker production
- NHS:
  - intervention development & implementation
  - running costs of mobile phone
  - ongoing support for Think ARV service
  - co-design team - HIV consultant, HIV pharmacists, GP

---

3 The ABPI Code of Practice for the Pharmaceutical Industry – Joint working with the Pharmaceutical Industry, 18 Nov 2013
Intervention development

• Phase 1 findings: GPs preferred
  • enhanced phone access (urgent advice)
  • email (non-urgent)

• THINK ARV intervention: optimise and raise profile of existing HIV pharmacy advice
  • new mobile phone answered by HIV pharmacist during normal working hours
  • bespoke sticker designed and printed
    • THINK ARV name & logo
    • service details
    • size/shape to fit eg on computer monitor
THINK ARV launch

- HIV pharmacists and GP participated in city-wide primary care educational event
- Article in regular GP bulletin
- Stickers and information sent to all local GP practices
Monitoring and evaluation

• Data collected for 6 months before and 6 months after service launch:
  • ART regimen
  • non-ART drugs
  • nature of query
  • recommendation
  • method of communication
• Drug-drug interactions (DDIs) categorised using University of Liverpool HIV Drug Interactions resource⁴
• User satisfaction survey emailed to enquirers who provided contact details

⁴www.hiv-druginteractions.org
• Significant increase in number of queries after service launch – p<0.001, CI (1.6-1.8)
• Increase in calls via landline too

<table>
<thead>
<tr>
<th>Method of Contact</th>
<th>Pre-intervention</th>
<th>Post-intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile</td>
<td>-</td>
<td>25</td>
</tr>
<tr>
<td>Landline</td>
<td>18</td>
<td>32</td>
</tr>
<tr>
<td>Letter</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Email</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>26</td>
<td>63</td>
</tr>
<tr>
<td>Enquirer</td>
<td>Pre-intervention</td>
<td>Post-intervention</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>GP</td>
<td>13</td>
<td>43</td>
</tr>
<tr>
<td>Practice pharmacist/technician</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Practice nurse</td>
<td>6</td>
<td>10</td>
</tr>
</tbody>
</table>

Results - who used the service?
Results - types of MRPs
Results - significance of DDIs

Source: www.hiv-druginteractions.org
Su was extremely pleasant on the phone. Answered my query promptly. I will definitely be using the service again.

Amazing! I don’t know how I managed before without it! The online support is not as helpful and clear as speaking to an HIV pharmacist directly.

Excellent!

Amazing help – saved me lots of time and gave me and the patient reassurance - thanks
Conclusions

• Objectives met:
  • further raise GPs’ awareness of potential MRPs associated with primary care prescribing for PLWH on ART
  • develop, implement and evaluate intervention to reduce MRPs by facilitating GPs’ real-time access to HIV advice

• Next steps:
  • Further GP/Primary Care engagement
  • Explore other ways to reduce MRPs in PLWH
    • Community pharmacists
    • Secondary care outpatient services
A joint working agreement between the NHS and MSD

In accordance with the ABPI Code of Practice for the Pharmaceutical Industry – Joint working with the Pharmaceutical Industry, 18 Nov 2013
“Red” & “amber” DDIs identified

<table>
<thead>
<tr>
<th>Non-ART amber DDIs</th>
<th>n=18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macrolides</td>
<td>2</td>
</tr>
<tr>
<td>Statin</td>
<td>5</td>
</tr>
<tr>
<td>Steroids</td>
<td>6</td>
</tr>
<tr>
<td>Antiepileptics</td>
<td>1</td>
</tr>
<tr>
<td>NOAC</td>
<td>1</td>
</tr>
<tr>
<td>NSAID</td>
<td>1</td>
</tr>
<tr>
<td>PDE inhibitor</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-ART red DDIs</th>
<th>n=10</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPIs/acid Suppressant</td>
<td>6</td>
</tr>
<tr>
<td>NOAC</td>
<td>2</td>
</tr>
<tr>
<td>Steroid</td>
<td>1</td>
</tr>
<tr>
<td>Domperidone</td>
<td>1</td>
</tr>
</tbody>
</table>