Dr Paul Benn
Central and North West London NHS Foundation Trust
Therapeutic tendering: an innovative strategy to reduce the cost of antiretroviral therapy

Paul Benn, Nick Larbalestier, Stephan Worrell, Zheng Yin, Brian Gazzard, Margaret Johnson, Peter Sharott, Jess Peck, Claire Foreman
Background

• NHS England is targeting efficiency savings of £15 billion by 2014/15

• £172 million spend on ART in London 2010/11

• The LSCG adopted a therapeutic tender approach for the procurement of ART to reduce the annual drug spend

• A multi-disciplinary panel of doctors, nurses, pharmacists, service users and commissioners oversaw the therapeutic tender, promoting the increased use of:
  
  i) efavirenz (EFV)
  
  ii) kivexa® in ART naïve
  
  iii) atazanavir as the first boosted protease inhibitor (rATV) where clinically appropriate across 23 London HIV outpatient services
Aims

We evaluated the impact of the therapeutic tender upon:

- Prescribing choice
- Clinical outcomes
- Patient experience
- Financial savings
Methods

• All trusts submitted a monthly report to the LSCG including patient:
  • Demographics
  • ART regimens
  • Reasons for starting/switching ART and non use of a therapeutic tender regimen were collected
• Clinical outcome data (CD4 and viral load) were obtained from national surveillance data (Public Health England)
• Half of patients starting/switching ART completed a questionnaire regarding their experience. Undertaken in two phases
Prescribing practice of therapeutic tender agents

- rATV
- EFV
- Kivexa

Chart showing prescribing practice over time from Apr-11 to Dec-12.
Prescribing practice of therapeutic tender agents

- rATV
- EFV
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Graph showing the prescribing practice of therapeutic tender agents from April 2011 to December 2012.
## Prescribing practice
### 2011/12 & Q1-3 2012/13

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Reasons for starting ART 12/13 Q1-3  
n=1681

- **CD4 Count Below 350**: 776 (46%)
- Unknown: 372
- High VL: 247
- Symptomatic: 281
- Other: 377
- OI: 62
- HCV/HBV Co-infection: 41
- Prevention: 67
- Rapid CD4 Decline: 59
- Pregnancy: 62
- Clinical Trial: 13
Reasons for switching ART 2011/12 & 12/13 Q1-3

n=6026

- Toxicity: 1540
- Intolerance: 1028
- Other: 651
- Pill burden: 624
- Unknown: 536
- LSCG tender: 509
- Resistance: 344
- Virological failure: 326
- Clinical trial: 316
- Co-morbidities: 216
- PK issues: 143

26% and 17%
Reasons for switching ART 2011/12 & 12/13 Q1-3 n=6026

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8% 6% 6%
Pattern of kivexa® use pre-therapeutic tender

ANNUALISED TREATMENT MONTHS

- Truvada®
- Kivexa®
- Atripla®
28% increase in kivexa® use post-therapeutic tender

Kivexa®
28% increase from April 2011 to January 2013
Patterns of protease inhibitor use pre-therapeutic tender

- Atazanavir 300mg
- Darunavir 800mg
- Kaletra®
- Fosamprenavir
- Saquinavir
41% increase in atazanavir/r use post-therapeutic tender

Atazanavir 300mg
41% increase from April 2011 to January 2013
### Outcomes - starting

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VL available at 3-6 months post starting ART in <50%
* Median 127 days post starting ART (range 92-182)
# Median 131 days post starting ART (range 92-182)
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Proportion of patients who agree/strongly agree with statements (phase 1 - 2011/12)

- I understood why my doctor asked me to start my new HIV treatment (n=1413) - 95%
- I was as involved as I wanted to be in this decision (n=1412) - 92%
- The potential risks and benefits of the new treatment were explained clearly (n=1408) - 91%
- I was given enough time to make my own decision about my new treatment (n=1414) - 86%
- I was able to ask questions about the new treatment (n=1411) - 94%
- I am happy with how my clinic managed this aspect of my care (n=1415) - 95%
- I am managing to take my new treatment as described (n=1411) - 93%
- I am feeling better on my new treatment (n=1383) - 78%

Therapeutic Tender
Other
# Overall Savings

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<th>Drug</th>
<th>Cost saving £</th>
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<tr>
<td>Atazanavir</td>
<td>2,065,132</td>
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<td>Atripla®</td>
<td>923,667</td>
</tr>
<tr>
<td>Truvada®</td>
<td>714,288</td>
</tr>
<tr>
<td>Darunavir</td>
<td>1,256,383</td>
</tr>
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<td>Kaletra®</td>
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**Total**  
7,212,505
Limitations

• Cohort data

• Incomplete data

• Limited duration of clinical data available post starting/switching ART
Conclusions

• Feasible

• Good uptake across services

• Clinical outcomes are as expected

• Patient experience positive

• Achieve significant financial savings

• Example of successful collaboration
Acknowledgments

- Patients

- HIV leads/pharmacists/clinical staff

- LSCG: Stephan Worrell
  Claire Foreman
  Jess Peck
  Peter Sharott

- HPA: Zheng Yin
  Alison Brown
  Graeme Rooney
Outcomes

- Overall 94% matched with SOPHID 2012 part 1
- CD4 available before and after start/switch: 89%
- Viral load available before and after start/switch: 80%
- Less than half had CD4 or viral loads available >3/12 after start/switch
Subsequent switchers
(Q1-3 2012/13)

- Total of 4196 start/switch episodes among 3793 individuals
- 274/3793 (7.2%) subsequently switching ≥ once (range 1-6)
- 32/550 (5.8%) subsequently switch away from kivexa
- 102/984 (10.4%) subsequently switch away from efavirenz
- 86/622 (13.8%) subsequently switch away from atazanavir/r
British HIV Association
BHIVA

19th Annual Conference of the British HIV Association (BHIVA)

16–19 April 2013

Manchester Central Convention Complex